FOUNDED IN 1856

RAILWAY AGE

JULY 16, 1949

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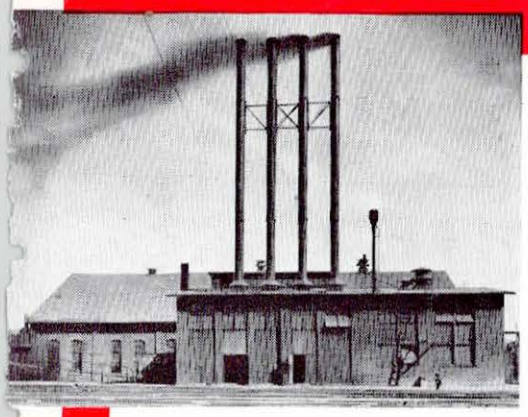
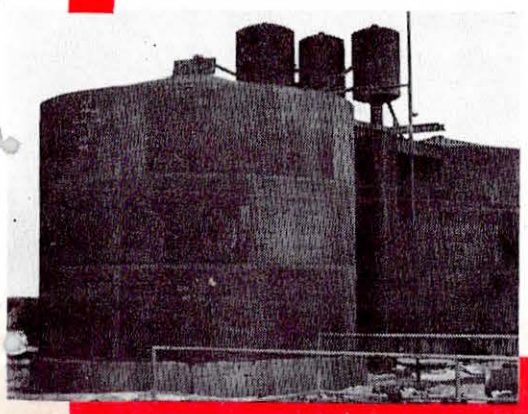




Want to cut maintenance costs?

BYERS WROUGHT IRON PLATES AND BARS CAN HELP.

Even a minor repair is expensive today, and any major replacement is a serious drain on already inadequate revenue. The only sure protection against this waste is the use of a *durable* material, that will give the longest possible trouble-free life.

Byers Wrought Iron hot rolled products have proved invaluable aids in combating corrosion, and minimizing repairs and maintenance. A few of the many installations where the material is successfully serving are:

UNLINED METAL STACKS. Severe corrosion can always be expected in this application, and changes in fuels, addition of economizers or draft inducers, or other factors may aggravate the condition at any time. Users who have made comparative tests report from two to four times the service-life from wrought iron.

BALLAST DECK PLATES. Ballast deck bridges save head-room—but they require a highly resistive deck material, if excessive maintenance is to be avoided. Drippings from coal and refrigerator cars, and run-off water, create a severe corrosive condition. Byers Wrought Iron has proven itself in dozens of individual installations on major roads.

BLAST PLATES. Stack gases, combined with the "sand blasting" action of expelled cinders do serious damage to unprotected bridge members. Byers Wrought Iron blast plates provide dependable protection. In one historic installation, 61 years of service was reported from wrought iron.

TANKS. Wash-out tanks, water tanks, and others, gain in durability through the use of wrought iron. One user reported over half a century of service from a wrought iron tank before it was finally dismantled.

If you have any corrosive applications where ordinary flat-rolled materials do not stand up, you'll find it profitable to investigate the service record of wrought iron. The nearest District Office will be glad to give you a technical bulletin, or detailed information, on request.

A. M. Byers Co., Pittsburgh, Pa. Established 1864. Boston, New York, Philadelphia, Washington, Atlanta, Chicago, St. Louis, Houston, Salt Lake City, Seattle, San Francisco. Export Division: New York, N. Y.

BYERS

GENUINE WROUGHT IRON

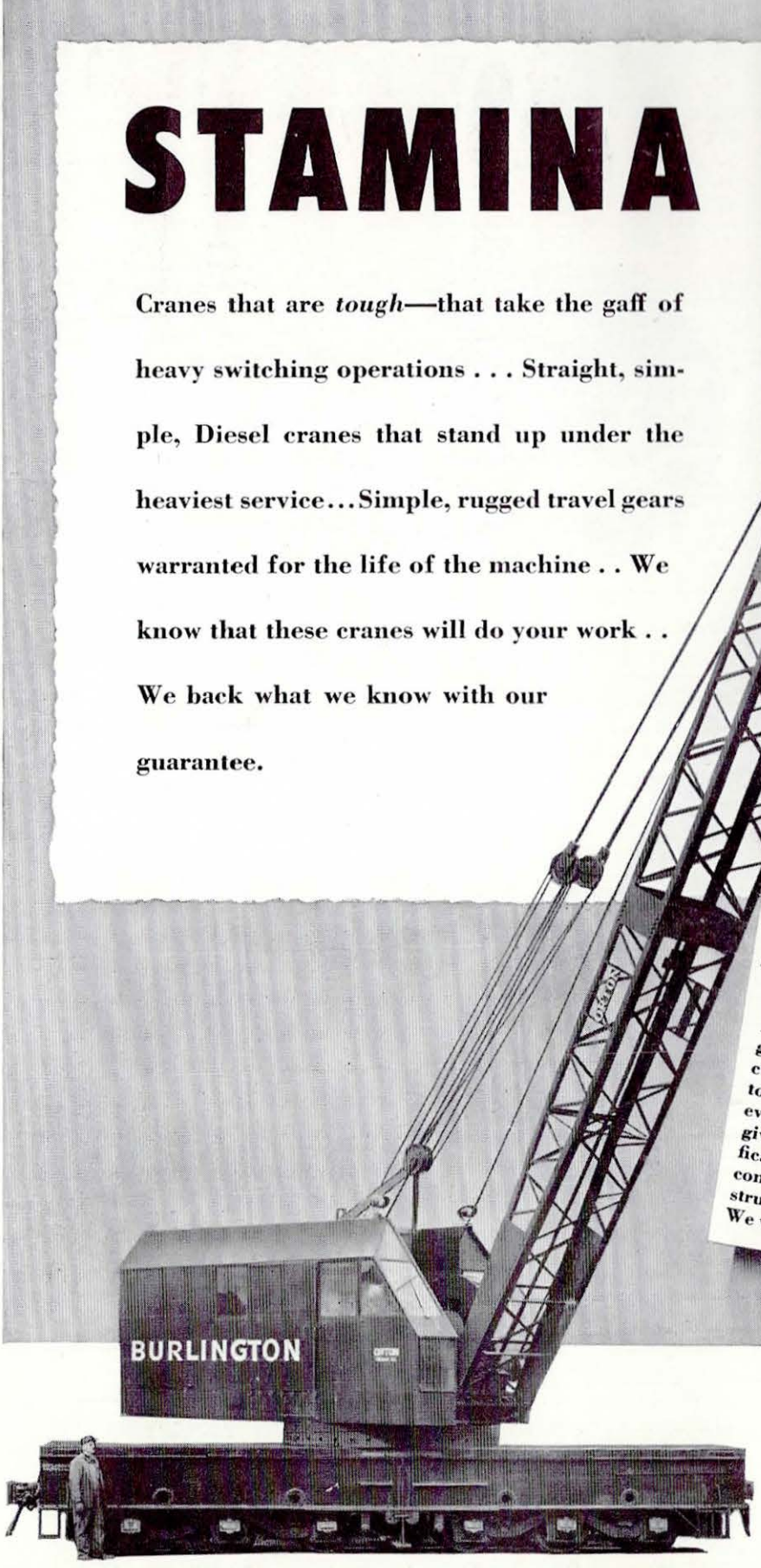
TUBULAR AND HOT ROLLED PRODUCTS

ELECTRIC FURNACE QUALITY ALLOY AND STAINLESS STEEL PRODUCTS

CORROSION COSTS YOU MORE THAN WROUGHT IRON

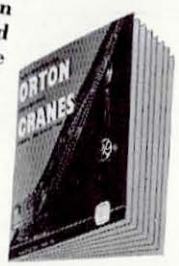
STAMINA

Cranes that are *tough*—that take the gaff of heavy switching operations . . . Straight, simple, Diesel cranes that stand up under the heaviest service... Simple, rugged travel gears warranted for the life of the machine . . We know that these cranes will do your work . . We back what we know with our guarantee.



Ask for CATALOG "77"

Illustrated — Orton 12-wheel, standard gauge locomotive crane, capacity 60 tons. No larger crane ever built. Catalog 77 gives detailed specifications of Orton locomotive crane construction. Send for it. We want to show you.



ORTON EXPERIENCE

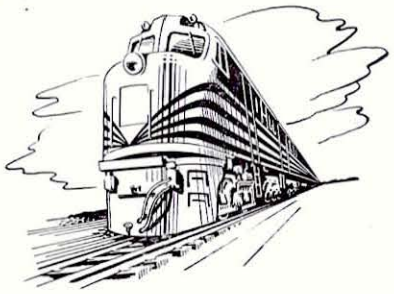
ORTON

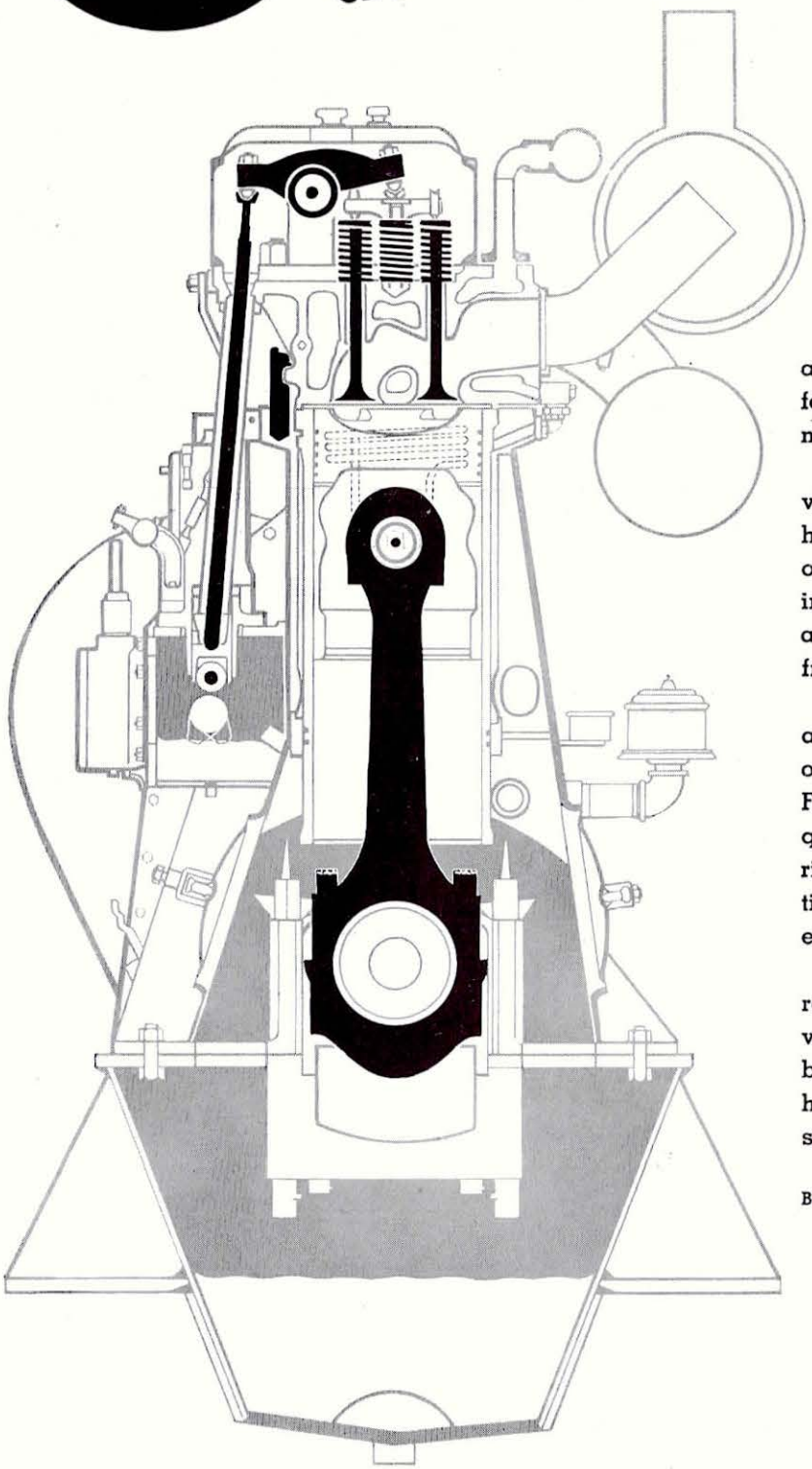
CRANE & SHOVEL COMPANY

608 South Dearborn, Chicago 5, Illinois

Published weekly by Simmons-Boardman Publishing Corporation, Orange, Conn. Executive Offices, 30 Church Street, New York 7, N. Y. Entered as second class matter at Orange, Conn., under the act of March 3, 1879. Subscription price $6.00 for one year. U. S and Canada. Single copies, 50 cents each. Vol. 127. No 3.

inside story of diesel dependability





The diesel engine parts emphasized in the cutaway drawing are usually made from alloy steels. They are the rods, pins, bolts, springs, rockers, and valves that are largely responsible for the dependability and efficiency of modern diesel locomotive power.

In many of these parts alloy steel provides the added strength to take the higher stresses encountered in this type of engine. In other parts it furnishes the increased resistance to corrosion, to heat, and to wear, needed for long, trouble-free operation.

Bethlehem produces the high-grade alloy steels used for diesel parts by many of the nation's leading engine builders. From start to finish, the uniformity and quality of Bethlehem alloy steels are rigidly controlled. Every known precaution is taken to see that they meet the exacting requirements of the industry.

In addition to manufacturing the full range of AISI steels Bethlehem also provides metallurgical assistance to diesel builders. Our metallurgists are glad to help with any problems concerning analysis, heat-treatment, forging or machining.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation

Export Distributor: Bethlehem Steel Export Corporation

BETHLEHEM STEEL

BETHLEHEM ALLOY STEELS

"We believe this investment

Railroading took a forward step recently when the Erie Railroad re-routed all passenger train operations into Cleveland Union Terminal behind Alco-G.E. locomotives. Robert E. Woodruff, President of the Erie, said, "Until diesel-electric locomotives were perfected, it was economically impossible for the Erie Railroad to use the Union Terminal in Cleveland. We believe the investment will increase our business."

In addition to greater convenience of the Union Terminal operation, the Alco-G.E. units have reduced running time. These locomotives have also contributed heavily to an over-all 73 per-cent reduction in the railroad's smoke sources in the city of Cleveland.

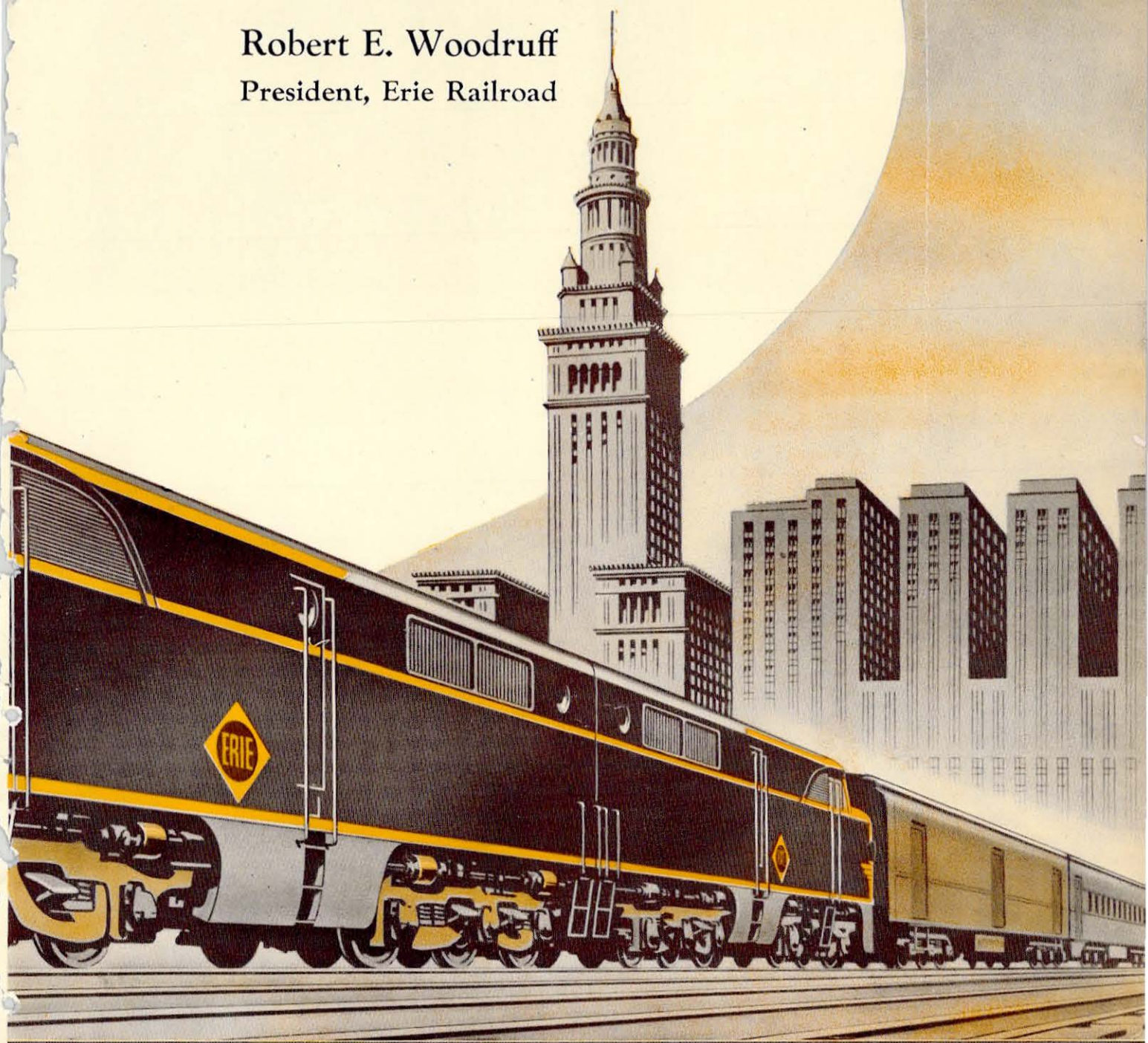
Alco-G.E. is proud of its role in this significant improvement, and of the jobs Alco-G.E. locomotives are also doing in freight and switching assignments on the Erie. Your own plans to increase business and streamline operations can be aided materially by the Alco-G.E. Survey Service. Your Alco-G.E. representative will gladly tell you how.

Alco GE

AMERICAN LOCOMOTIVE

will increase our business"

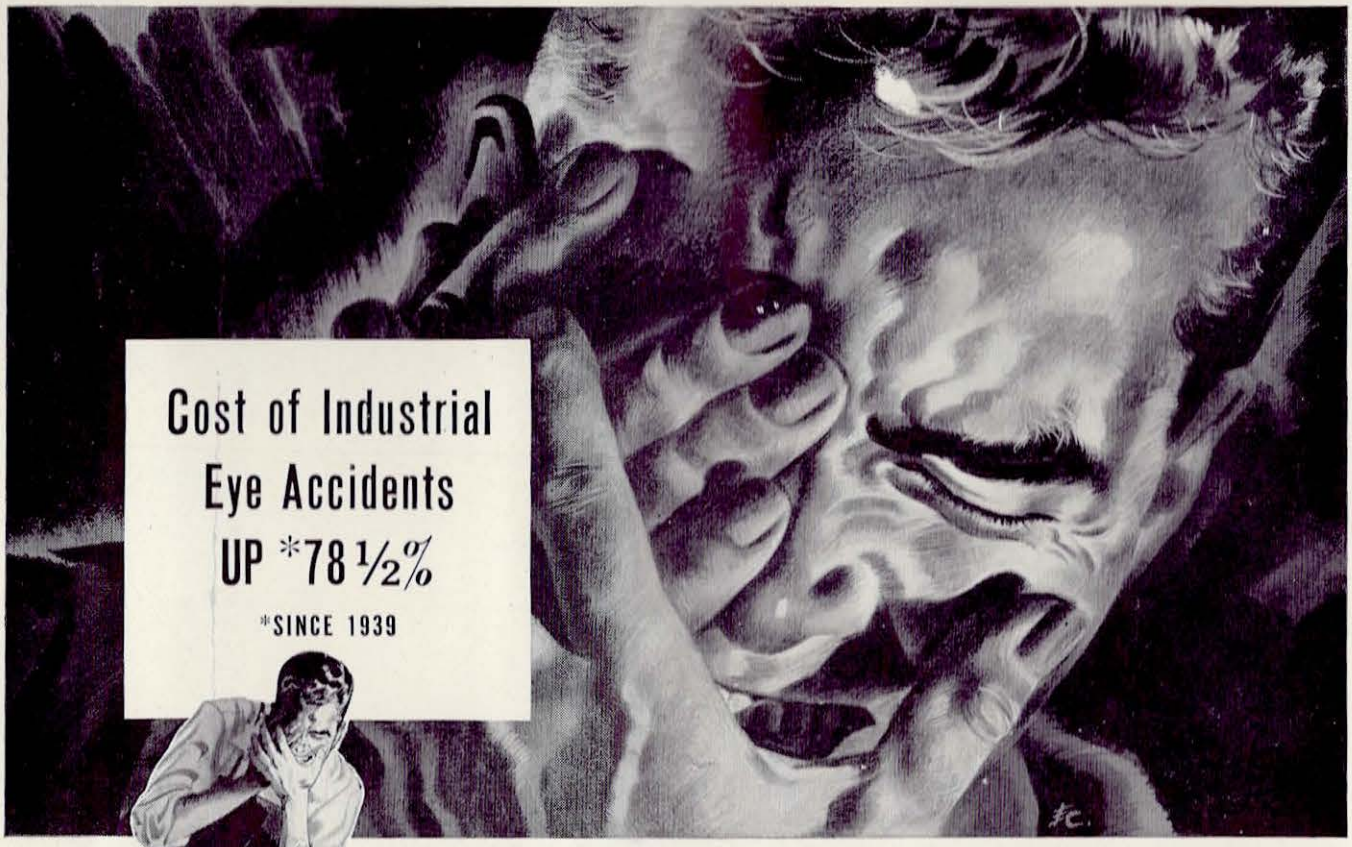
Robert E. Woodruff
President, Erie Railroad



IN CANADA Alco GE IS MLW GE

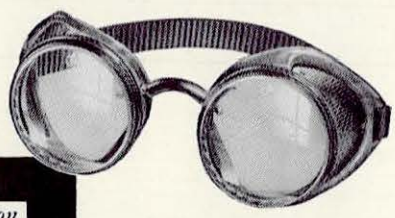
and GENERAL ELECTRIC

118-231



You Can Give this High Cost the "Disinflation Treatment" NOW!

When tightening up operations, don't fail to examine the costs of eye accidents. In addition to their DIRECT costs which range from $15 to sums in four figures, the HIDDEN costs can be a severe drain on profits. These include lowered production due to substitution of inexperienced workers for key men, impaired shop morale, abuse of equipment by "green" operators, the invitation of additional accidents to eyes, limbs and body through unfamiliarity with work processes. Adequate eye protection programs have saved these needlessly high costs in plant after plant by preventing 98% of all eye accidents . . . at a nominal outlay. Ask your nearest AO Safety Products Representative to call with facts and figures.



American Optical COMPANY *Safety Products Division*

Southbridge, Massachusetts
Branches in Principal Cities

TAKE THE BEAUTIFUL NEW *Shasta Daylight*

PORTLAND ★ SAN FRANCISCO

★ *Coast Daylights* show you the Pacific Ocean and Mission Trail (Los Angeles-San Francisco).

★ *New Shasta Daylight*—"The Million Dollar Train with the Million Dollar View" (San Francisco-Portland).

New luxury train—new low fare—new fast schedule! The beautiful *Shasta Daylight* now links Portland and San Francisco in a 15½-hour run (7:45 a.m. to 11:15 p.m.), lets you see the whole Pacific Coast by day.

Now you can see the whole Pacific Coast by *Daylight*. Through the huge "Sky-view" picture windows of the *Shasta Daylight* you see Lassen Peak, Shasta Dam's Lake and Pit River Bridge, breath-taking Sacramento River Canyon, mighty Mt. Shasta, the Cascade Mountains, Odell Lake, the Willamette River.

Together with our California *Daylights*, this new streamliner shows you the world's greatest parade of ocean and mountain scenery—all by daylight, in streamlined chair cars, *at lowest fares*.

The *Shasta Daylight* is custom-built for the route it serves. Decoration and color schemes were taken from the scenery along the way.

Its enormous windows—nearly 30% taller and wider than the extra large windows on our other *Daylights*—are especially designed for viewing mountain scenery. A "breathing" apparatus prevents fogging of the glass. All seats are of soft foam rubber. Luggage is safely stored in baggage elevators, out of your way. Feather-touch doors open and close automatically.

Traveling to or from the Pacific Northwest, plan to ride the *Shasta Daylight*.

★ *Send for free folders.*

SOUTHERN PACIFIC'S FOUR SCENIC ROUTES
showing the route of the Daylights in black

L. C. Ioas, Dept. RA-71
310 So. Michigan Avenue, Chicago 4, Ill.

Please send me, free, your color booklet "The New *Shasta Daylight*" and folder "See the Pacific Coast by Daylight".

Name_____

Address_____

City_____ State_____

S·P **The friendly Southern Pacific**

Meet S.P.'s new

AN OUTSTANDING TRAIN...AND ITS TWIN

Native woods, hand-carved paneling, gleaming plastics, vibrant colors—Cedar Reds, Crater Lake Blues, Redwood Browns, Canyon Tans—contribute to the exciting decorative scheme of the *Shasta Daylight's* tavern car.

Congratulations to Southern Pacific! July 10 brought the inaugural run of their new *Shasta Daylight,* on its time-slashing 15½-hour schedule—each day, each way—between San Francisco and Portland.

The twin *Shasta Daylight* trains, built by Pullman-Standard, embody the latest refinements in passenger-car design. Especially noteworthy is the construction of the diner, kitchen, and coffee shop as a 3-car articulated unit, with free passage between cars. A striking feature is the provision for loading and discharging luggage through an electrically operated port in the side of each coach. All cars have pressurized air conditioning and zone heating.

Luxurious comfort and colorful beauty mark the *Shasta Daylight* as one of America's most distinguished trains . . . worthy to rank with the greatest of *all* the great trains that testify to the superior craftsmanship of Pullman-Standard.

Shasta Daylight!

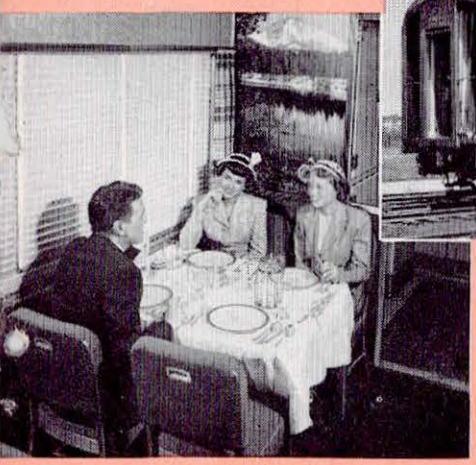
...BUILT BY PULLMAN-STANDARD

Luggage handled by outside-opening, electrically operated elevators is always accessible, but never blocks vestibules.

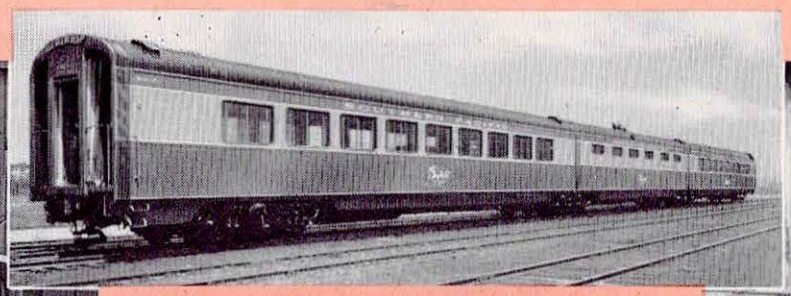
Chair cars have picture windows more than five feet wide. Adjustable seats are cushioned with yielding foam rubber.

The diner, seating 66, is richly carpeted in blue green, with gold draperies and seat coverings in autumn red.

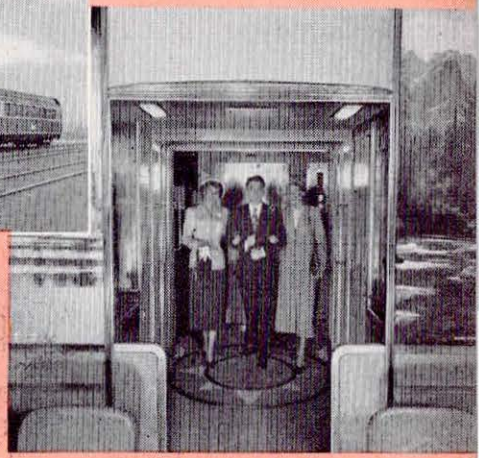
The *Shasta Daylight's* diner, kitchen, and coffee shop form a 3-car articulated unit, combined for maximum service efficiency.



As in the diner, scenic murals add color and interest to the coffee shop. Sixty-eight seats are provided here.



Passageways linking the 3-car unit are wide and doorless. Here passengers stroll arm in arm as they enter the coffee shop.



Pullman-Standard

CAR MANUFACTURING COMPANY

CHICAGO • NEW YORK
CLEVELAND • WASHINGTON, D.C.
PITTSBURGH • BIRMINGHAM

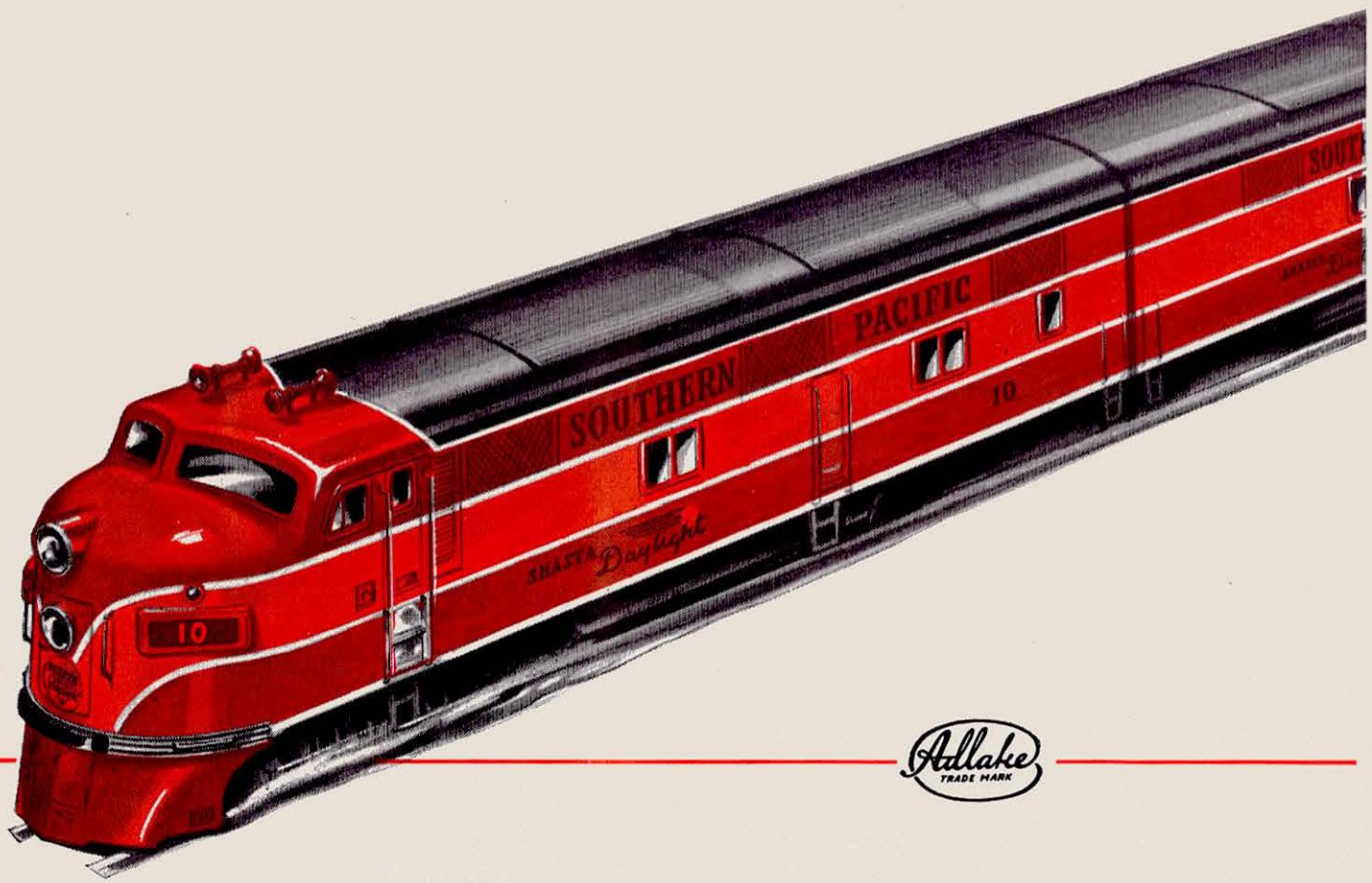
SAN FRANCISCO SALES REPRESENTATIVE, MARK NOBLE

Saluting SOUTHERN

new SHASTA

in whose furnishings we are proud to have had a part

SOUTHERN PACIFIC's new *Shasta Daylight* is a dream come true! A dream of speed, smooth operation, and luxurious appointments contributing to passenger comfort. And we are proud to point out that from the rim of the locomotive headlight to the rear of the observation car, the *Shasta* bears equipment with the Adlake trade-mark. Like nearly all other major American roads, Southern Pacific has found that Adlake Breather Windows satisfy all requirements for safety, worry-free operation and passenger comfort. All hardware on the *Shasta Daylight's* locomotive is Adlake, as are the locomotive windows. In addition, the *Shasta Daylight's* window curtain fixtures and rollers; vestibule curtains; inner diaphragms, and folding lavatories are of Adlake manufacture.



Adlake
TRADE MARK

PACIFIC'S
DAYLIGHT

SEE HOW ADLAKE specialties and equipment fit into *your* modernization plans! For detailed information on any and all products, write us at 1109 North Michigan, Elkhart, Indiana.

Views of Mt. Shasta, the Cascades, and other Pacific Coast sights are sharply visible through the extra-large skyview picture windows on The Shasta Daylight. And the view is always perfect, because they're crystal-clear Adlake Double-Glazed Breather Windows!

SHASTA Daylight ★ SOUTHERN PACIFIC LINES

THE Adams & Westlake COMPANY

Established 1857 • ELKHART, INDIANA • New York • Chicago

Manufacturers of Adlake Specialties and Equipment for the Railroad Industry

RAILROADERS"

Power Supply

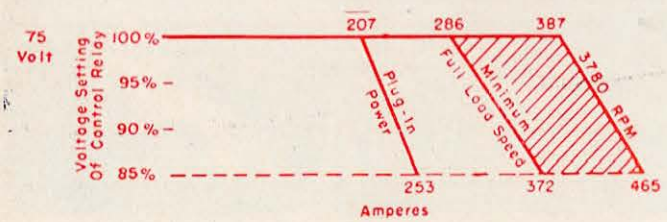
B & O's choice for The NEW "Columbian"

Soft fluorescent lighting, comfortable air conditioning, and pleasant radio music, all made possible by General Electric passenger car power generators, make a trip on "The New Columbian" a delightful experience.

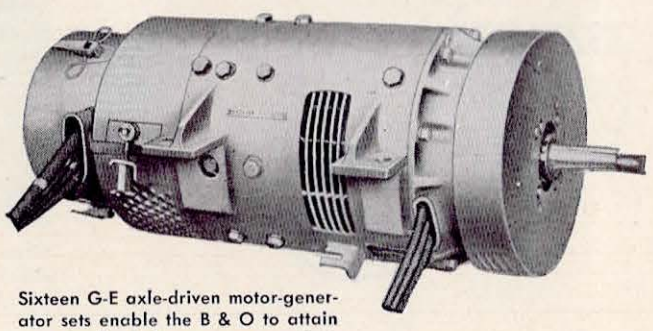
General Electric axle-driven motor generators were a natural choice for the Baltimore & Ohio Railroad's two new *Stratodome* trains of "The New Columbian"... first dome-car trains to go in service east of Chicago.

These motor generators deliver full output over a wide range of train speeds—from very low "yard-limit" speeds to 100 miles an hour or more on the level. This means lower duty on your storage batteries and fewer re-chargings. Also, they charge low batteries at a high rate; fewer stand-by re-chargings are needed.

WANT LOWER ON-LINE POWER COSTS? With the rapidly increasing rise of electric water coolers, fluorescent lighting and electric cooling equipment, savings here can loom large. Your General Electric representative will be glad to give you the full story. For detailed information on G-E axle-driven motor generators, check Bulletin GEA-4671. *Apparatus Dept., General Electric Co., Schenectady 5, N. Y.*



HIGH RESERVE POWER is made possible with a G-E motor generator because the control system permits "current limit" to *increase* as car speed increases. It permits additional current output above this variable "current limit" if the battery voltage is below normal. (See shaded area in the chart shown above.)



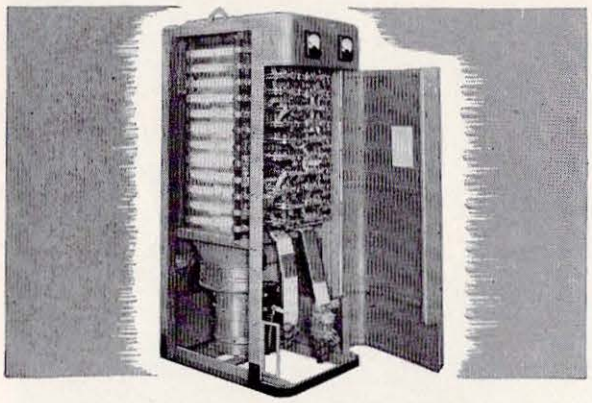
Sixteen G-E axle-driven motor-generator sets enable the B & O to attain new standards in passenger comfort.

You can put your confidence in—

GENERAL ELECTRIC

DIGEST

News and notes about
GENERAL ELECTRIC products
for the railroad industry

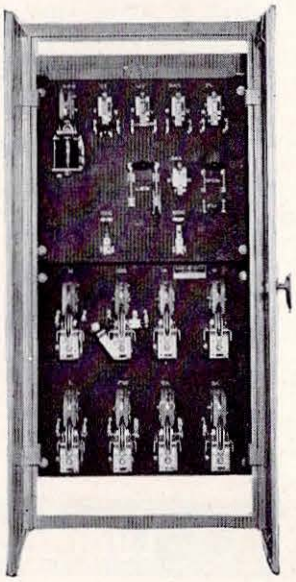


Want a better way to test Diesel-Electric Power Plants?

A General Electric loading resistor will give you a quick, accurate "picture" of diesel-electric power plant performance. With the resistor connected to the propulsion generator, you can easily measure engine power output. Moreover, you can determine exactly where protective generator control settings should be made. The G-E loading resistor has 8 resistance values—enough for a small-horsepower switcher or 2000-hp road locomotives. Check off Bulletin GER-117 on the coupon for more data.

IT'S HERE!

THE CRANE CONTROL SHOP MEN ASKED FOR!



After nearly two years of intensive development and testing, General Electric is now ready with an ALL NEW d-c magnetic crane control—CR4422. Here's a control that actually *speeds up* crane operation by providing faster, safer acceleration and deceleration no matter how erratically the master switch handle is moved. Check into the new G-E d-c crane control now! Write for Bulletin GEA-2292B.

THE CALLBOARD

FOR YOUR FILES

Four new bulletins that will help you maintain passenger car equipment better, at lower cost.

Bulletin GEA-4174A, "Insulation-resistance Meter." For easy detection of insulation faults. Enables you to discover and remedy low values of resistance that may cause equipment failure during high potential tests.

Bulletin GEA-4140A, "Vibration-measuring Equipment." An 8-page bulletin covering 3 vibration measuring devices that detect out-of-balance conditions in rotors quickly and accurately.

Bulletin GEC-233A, "Leak Detector, Type H." For locating extremely small leaks in air conditioning and refrigerating systems in which a halogen compound is the refrigerant.

Bulletin GEC-320A, "Portable Dynamic-Balancing Equipment." For balancing, within a speed range of 600-6000 rpm, rotating parts weighing 30 lbs. or more. Helps you obtain quiet operation of equipment for undercar mounting.

General Electric Company, Section C152-2
Apparatus Department, Schenectady 5, N. Y.

Please send me the following bulletins:

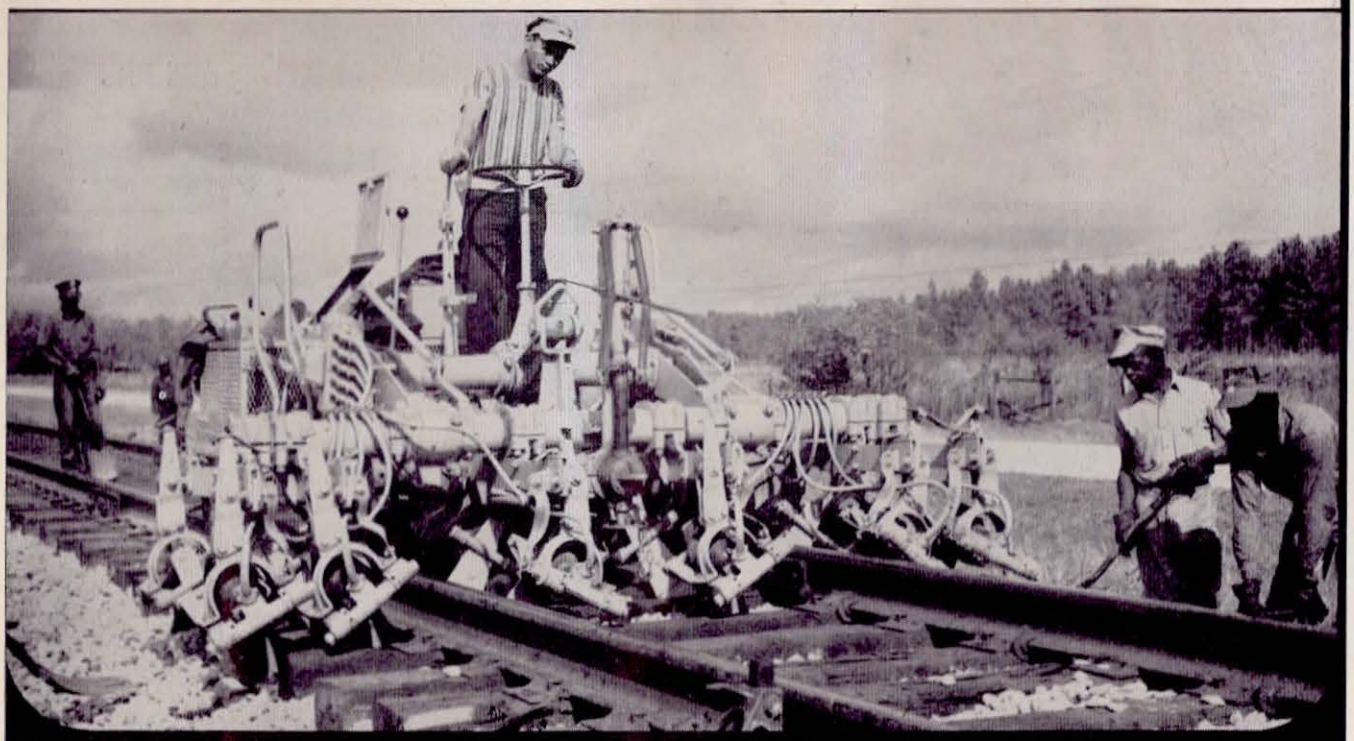
- ( ) GEA-4671—Axle-driven Motor Generators
- ( ) GER-117—Loading Resistor For Testing Diesel-Electric Power Plants
- ( ) GEA-2292B—D-c Magnetic Crane Control
- ( ) GEA-4174A—Insulation-resistance Meter
- ( ) GEA-4140A—Vibration-measuring Equipment
- ( ) GEC-233A—Leak Detector Type H
- ( ) GEC-320A—Portable Dynamic-Balancing Equipment

Name_____

Company_____

Street_____

City_____ State_____



THE JACKSON "M-T"

——— a sound solution to the 40-HOUR-WEEK PROBLEM: ———

If higher pay rates and the 40 hour week appear to make adequate ballasting operations impossible within the limits of your budget, do one of two things:

1. Call in a Jackson consulting engineer — a practical individual thoroughly trained in maintenance methods and practice and one who talks your language. He can answer all your questions in short order and explain how the Jackson "M-T", operating under the conditions obtaining on your particular road, can help you to a sound solution of your problem. Or . . .

2. If you would rather simply study a Jackson "M-T" in actual operation, write for nearest location.

Prompt deliveries can be made to those who wish to capitalize on the tremendous advantages of this machine during the rest of the season. Write, wire or phone us, Now!

ELECTRIC TAMPER & EQUIPMENT CO. Ludington, Michigan

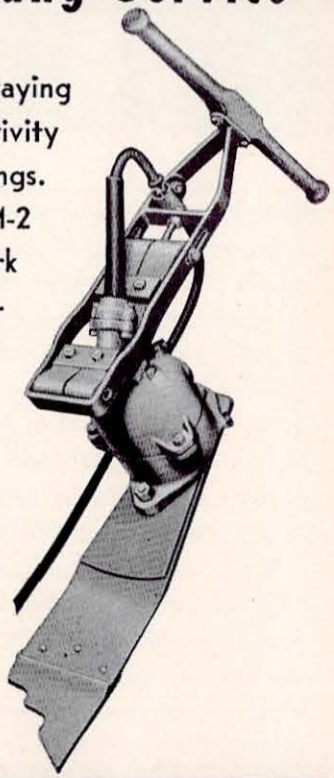
THE JACKSON 4-TAMPER OUTFIT

SECTION GANG PRODUCTION BOOSTER

Finest of Unit Tampers for Extra Gang Service

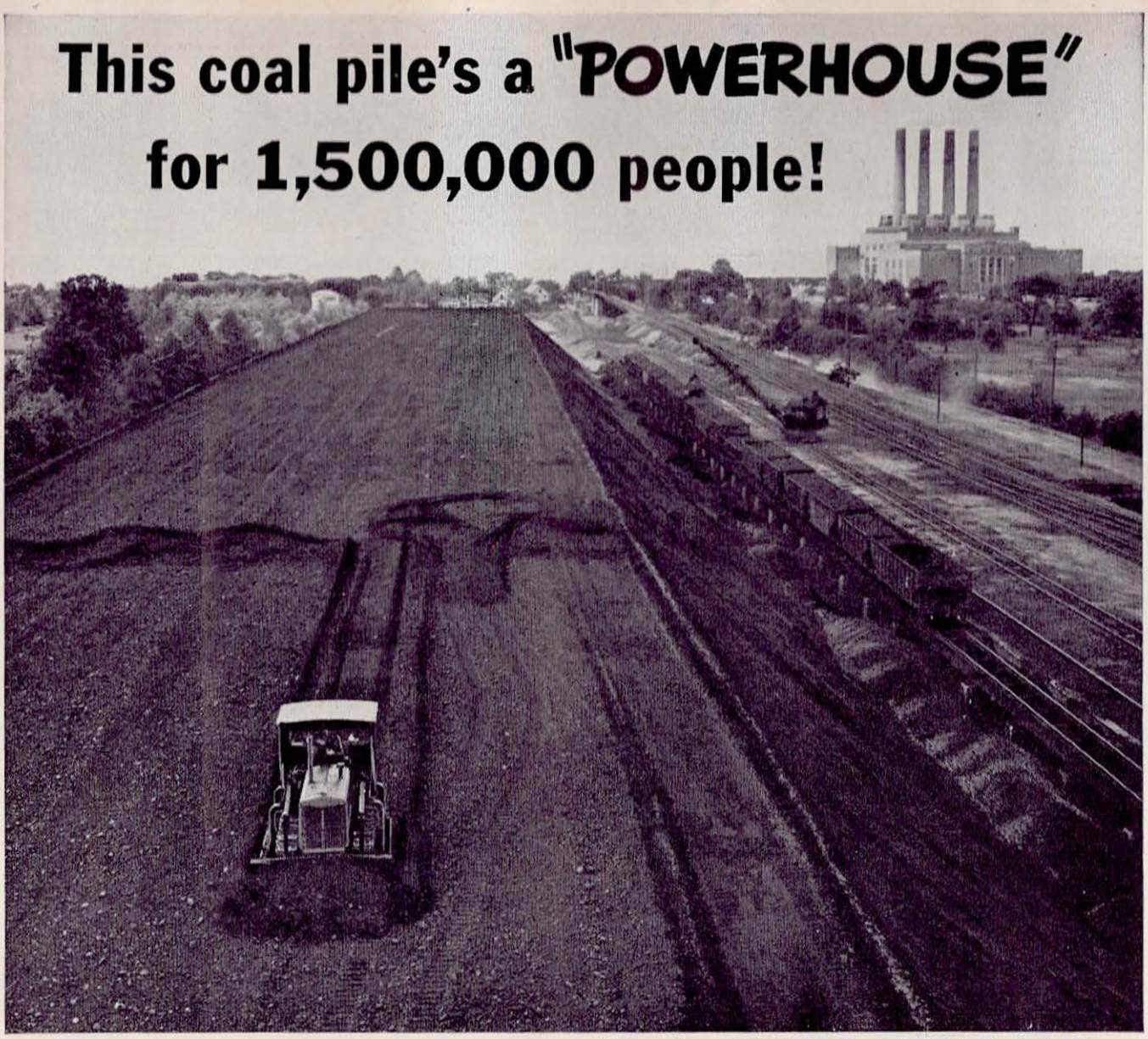
In your search for rock-bottom maintenance costs, necessitating staying within the 40-hour week, don't overlook the great boost in productivity Jackson standard tampers and power plants can give to your section gangs.

Equipped with 4 Jackson standard tampers and our Model M-2 Power Plant, a section gang will turn out a whale of a lot more work and better work than can be done by hand or with any other hand-guided mechanical tampers. For spot tamping, skeletonizing and such out-of-face surfacing as is usually done by the average section gang, the Jackson 4-Tamper outfit is truly ideal. Moreover, whenever desired these outfits can be grouped in extra gang service for a general lift or major ballast insertion — with results that are surpassed only by the multiple tamper. Get the complete facts. Write, wire or phone us, NOW!



ELECTRIC TAMPER & EQUIPMENT CO. Ludington, Michigan

This coal pile's a "POWERHOUSE" for 1,500,000 people!



Photograph copyrighted by The Cleveland Electric Illuminating Company

Here's a picture of a 200,000-ton coal pile—ready to put light and power into homes and work places of a large city. Pulverized and blown into the steam boilers of an electric generating plant, this coal will help make living and working brighter and easier for a million and a half people.

Indeed, the demand for coal to be used in generating electricity has more than tripled since 1930, in spite of hydro-electric developments and in the face of the fact that electric power companies now "squeeze" three times as much "juice" from a ton of coal as in 1914.

Today coal provides power companies and other users with the most economical, reliable source of energy. And modern mining is geared to build up and maintain stock piles like the one pictured above. To keep the fires of America burning brightly, both now and in the future, the progressive mining industry is spending hundreds of millions of dollars on new and improved mechanized equipment and facilities.

Modernizing America's bituminous coal mines means replacing "pick and shovel" mining with power machines. Today more than 91% of production is mechanically cut and 60% is mechanically loaded. And among many new preparation plants now under construction is one designed to wash and grade coal for specific uses at a record rate of 2,000 tons an hour.

Largely as a result of modernization by progressive management, the American miner's average daily output is five times greater than that of the British miner and his take-home pay is higher than that paid by any other major American industry.

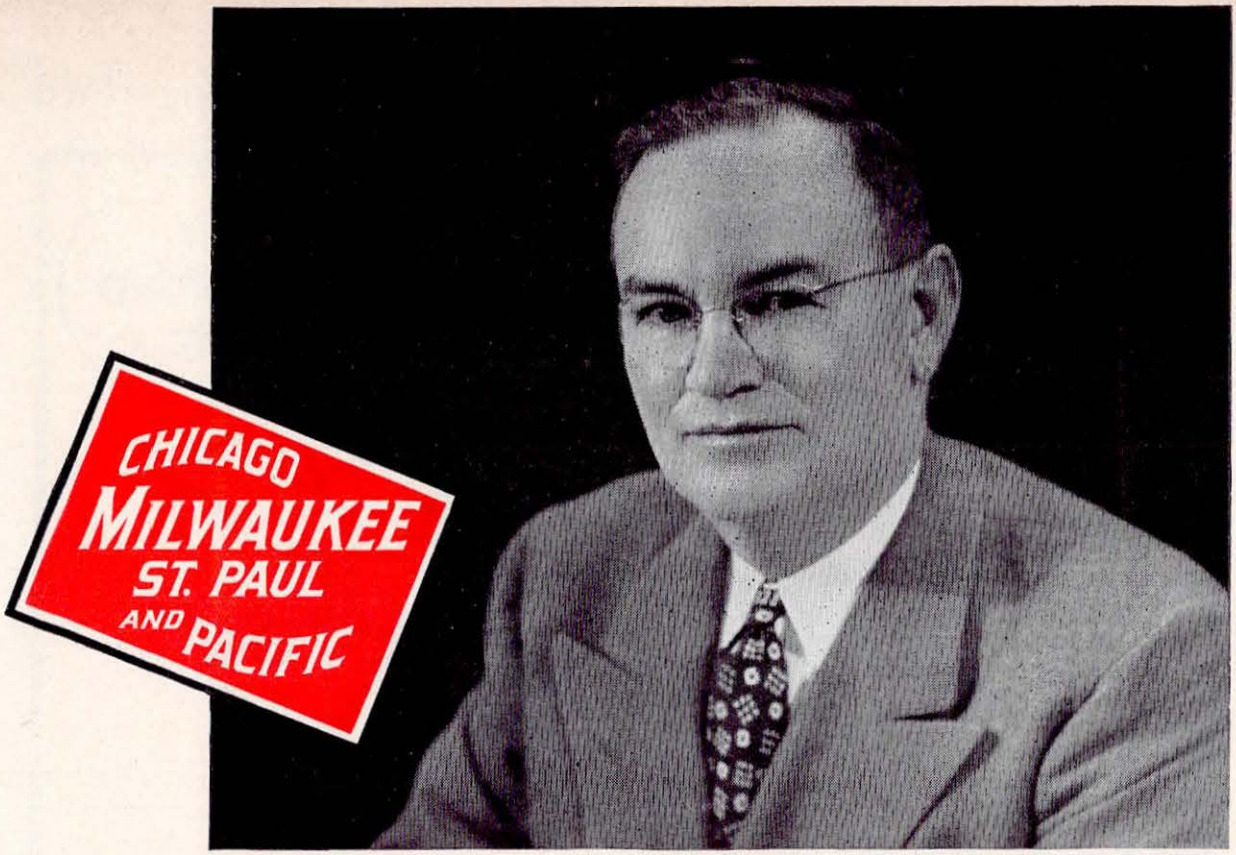
BITUMINOUS COAL

BITUMINOUS COAL INSTITUTE

A DEPARTMENT OF NATIONAL COAL ASSOCIATION

WASHINGTON, D. C.

BITUMINOUS COAL . . . LIGHTS THE WAY . . . FUELS THE FIRES . . . POWERS THE PROGRESS OF AMERICA



Mr. J. P. Kiley, Vice-President in Charge of Operations
Chicago, Milwaukee, St. Paul and Pacific Railroad Company

"Two-Way Train Radio is Synonymous with Modern Railroad Operation—The Increased Efficiency and Faster Service Benefits the Employee, the Railroad and the Public"

Early in the development of two-way radio telephones for railroads, Milwaukee Road communications engineers sought the collaboration of Bendix in planning a more useful communications supplement to its signaling system and to its regular communications network. Mr. J. P. Kiley draws on his experience in using two-way radio to say: "Two-way radio for train crews provides a means for even better service to shippers, and benefits the employee as an added convenience in doing his job.

"The Milwaukee Road has had head-to-rear radio for more than two years on the Kansas City Division, and our plans call for a gradually expanding use of train radio to other parts of our system."

This record of Milwaukee progress in adapting VHF train radio to its operation, proves again that Bendix train radio is efficient, economical and dependable.

MORE RAILROADS USE MORE BENDIX VHF TRAIN RADIO THAN ALL OTHER TYPES COMBINED

Bendix V.H.F. Radio

BENDIX RADIO
REG. U.S. PAT. OFF.

BALTIMORE 4 MARYLAND

PRODUCT OF Bendix AVIATION CORPORATION

Export Sales: Bendix International Division, 72 Fifth Avenue, New York 11, New York

They All Ride the Iron Horse — By Hungerford

Watch for other railroad cartoons by Mr. Hungerford

A cut of suitable size may be obtained at cost by anyone wishing to reproduce the above cartoon.

Address requests to:

Edgewater Steel Company
P. O. Box 478, Pittsburgh 30, Pennsylvania.

You can count on **penta** chlorophenol -treated poles and ties, too!

Probably the highest praise a railroad man can receive is to say, "he's dependable"!

Performance dependability is an important asset to any road. Railroad men are recognizing more and more that dependable preservative action is what you can expect from PENTAchlorophenol-protected poles and ties. They also like the clean treatment PENTAchlorophenol provides for walkways, platforms, loading docks and car lumber.

PENTAchlorophenol's deep penetration and low volatility add up to lasting preservative action . . . protection that lasts through the years, even under the severest climatic conditions.

Specify the PENTAchlorophenol treatment for safeguarding your crossties and poles . . . as well as sheds, platforms and other wood construction.

THE DOW CHEMICAL COMPANY • MIDLAND, MICHIGAN

DOW penta- chlorophenol

Particular People always choose the tidy one!

("Let's take da Bullet, Pete . . . we know dey ain't got bugs . . . dey use Enoz!")

FREE

Enoz Vaporizers . . . the "brains" of the Enoz System . . . are supplied free of charge to users of Enoz!

Enoz SYSTEM OF MODERN INSECT CONTROL

Prevents Insect Infestation . . . Promotes Good-Will!

Today, traveling people just naturally expect home-like convenience and comfort of railroad equipment and service . . . insist that all cars be thoroughly clean . . . absolutely free of insects! And, that's why more and more of the "Big" railroads are switching to Enoz! They are finding that the Enoz System of Modern Insect Control is fast, convenient, easy, economical and ABOVE ALL *THOROUGH!* The Enoz System can be adapted to any type of railroad car . . . diner, lounge, kitchen, Pullman, day coach or freight! Investigate the many advantages of the famous Enoz System of Modern Insect Control today! Write now for complete information.

THE DIVERSEY CORPORATION

Industrial Insecticides Department

53 West Jackson Boulevard, Chicago 4, Illinois

IN CANADA: THE DIVERSEY CORPORATION (CANADA) LTD., TORONTO, ONTARIO

Work at CONEMAUGH DAM helps prove

FABRICATED AND ERECTED BY
AMERICAN BRIDGE COMPANY

= a job done *Right*

AMERICAN Bridge Company undertook a major project involved in the relocation of the Pennsylvania Railroad's tracks to prepare for the building of the Conemaugh Dam, a flood control project for the Ohio River Valley.

American Bridge fabricated and erected the five double track spans and three underpasses on this project, involving approximately 7,000 tons of structural steel.

We cite this project as additional proof that where you see the sign "Fabricated and Erected by American Bridge Company," you'll see a job done efficiently.

AMERICAN BRIDGE COMPANY

General Offices: Frick Building, Pittsburgh, Pa.

Contracting Offices in: AMBRIDGE · BALTIMORE · BOSTON · CHICAGO · CINCINNATI
CLEVELAND · DENVER · DETROIT · DULUTH · ELMIRA · GARY · MINNEAPOLIS
NEW YORK · PHILADELPHIA · PITTSBURGH · PORTLAND, ORE.
ST. LOUIS · SAN FRANCISCO · TRENTON
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

Erecting the Pennsylvania Railroad's Spruce Run Bridge for the Corps of Engineers, United States Army. Here a combination crane-derrick car is placing one of the 100-foot, 85-ton girders for this double track, through plate girder bridge.

AMERICAN BRIDGE

UNITED STATES STEEL

FOR SOUTHERN PACIFIC'S NEW

Shasta Daylights

The New "Touch" in Passenger Convenience

NP

Automatic End Door Operators!

There are three good reasons why you find NP Automatic End Door Operators in service on over 25 Class 1 railroads—on both new and remodeled passenger equipment. For these modern, effortless Door Operators appeal to three important groups—passengers, operating and maintenance men, and top officials.

Passengers of every age appreciate the convenience of end doors that open automatically at the lightest touch, then close gently and safely. Operating and maintenance personnel approve the sturdy simplicity of the compact door-control mechanism . . . and its reliable, trouble-free performance. On both scores, NP Automatic End Door Operators appeal to railroad officials alert to improving passenger relations and keeping down operating and maintenance costs.

Whether planning for new passenger cars or on modernizing present equipment, be sure to investigate the advantages of these End Door Operators. Adaptable to swinging or sliding end doors, they are backed by the full manufacturing experience and world-wide service facilities of the National Pneumatic Company, for nearly fifty years the outstanding leader in Door Control and Safety Equipment.

• • •

Complete information is available in our Publication No. 1063.

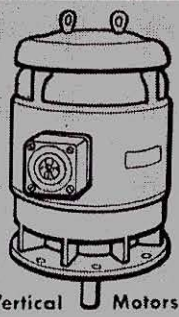
NATIONAL PNEUMATIC COMPANY

Graybar Bldg., New York McCormick Bldg., Chicago Rahway, New Jersey

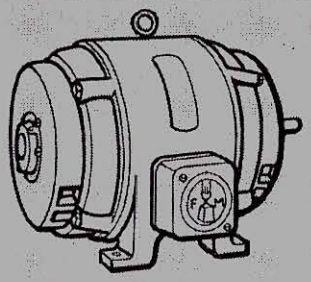
Represented in Canada by Railway & Power Engineering Corp., Ltd., Toronto

7663

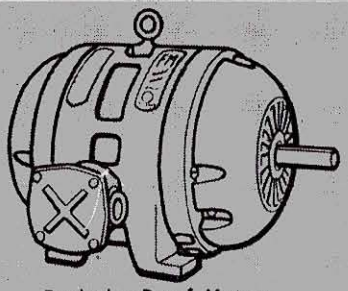
WORLD'S LARGEST MANUFACTURER OF DOOR CONTROL AND SAFETY EQUIPMENT



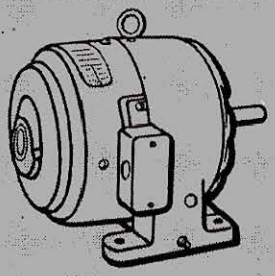
Vertical Motors



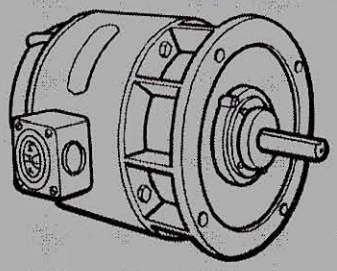
General-Purpose Ball-Bearing Motors



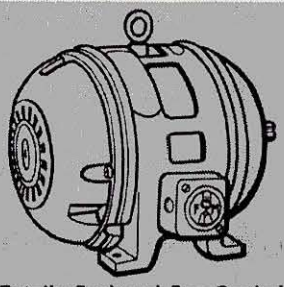
Explosion-Proof Motors



Motorgears

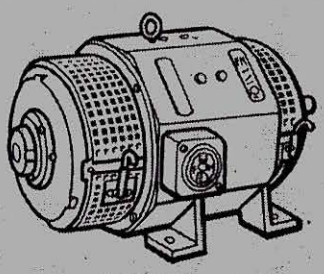


Flange-Mounted Motors



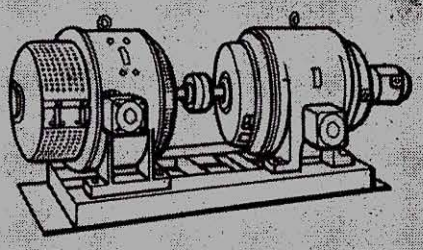
Totally Enclosed Fan Cooled

when it comes to Motors...



D.C. Motors

Railroads stand to gain much in dealing with Fairbanks-Morse as the single source for *all* their electric motor requirements. Not the least are the benefits of undivided responsibility, unprejudiced advice and application assistance. For a copy of the handy "Pocket Panorama" which illustrates the complete line... write Fairbanks, Morse & Co., Chicago 5, Illinois.

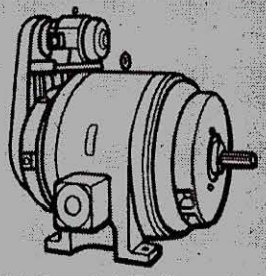


Motor Generator Sets

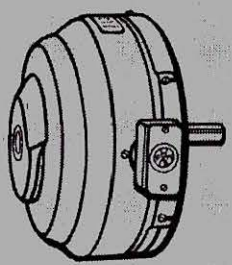
FAIRBANKS-MORSE

A name worth remembering

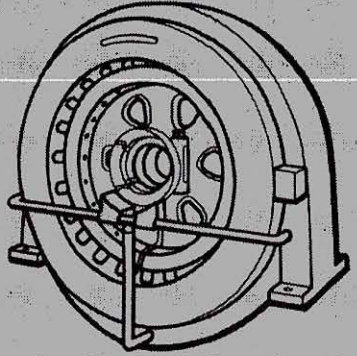
DIESEL LOCOMOTIVES • DIESEL ENGINES • PUMPS • SCALES • MOTORS • GENERATORS
STOKERS • RAILROAD MOTOR CARS and STANDPIPES • FARM EQUIPMENT • MAGNETOS



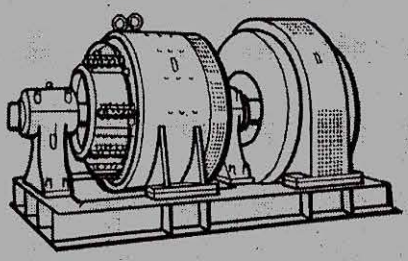
High-Speed A.C. Generators



Axial Air Gap Motors



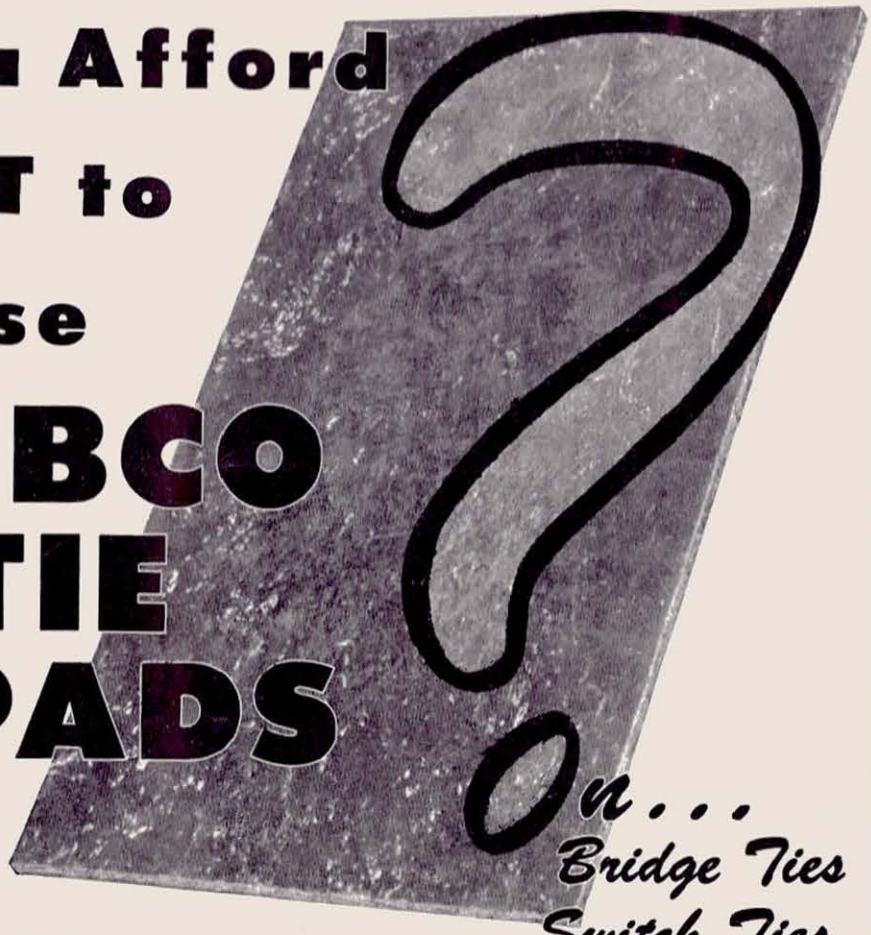
Low-Speed A.C. Generators



Frequency Changer

Under the Operating Conditions Which Confront You . . .

Can You Afford NOT to Use FABCO TIE PADS



On . . . Bridge Ties Switch Ties Station Ties and Ties on Curves

With the high *INSTALLED* cost of ties today and their relatively short life under present volume of traffic at such critical points as bridges, switches, curves, and stations, the initial cost of *FABCO TIE PADS* will be repaid many times over. This saving results not only from extension of tie life, but also from the reduction in the cost of maintaining gauge, line, and surface.

FABCO is the ideal pad for this purpose because it withstands extremes of temperature, moisture, brine, mildew, and sand. It is resilient, maintains its original thickness without permanent set, eliminates the need of tightening spikes, and requires no renewals.

IT PAYS TO SPECIFY FABCO TIE PADS

Made by the Makers of Fabreeka

Fifteen Years Experience in Track

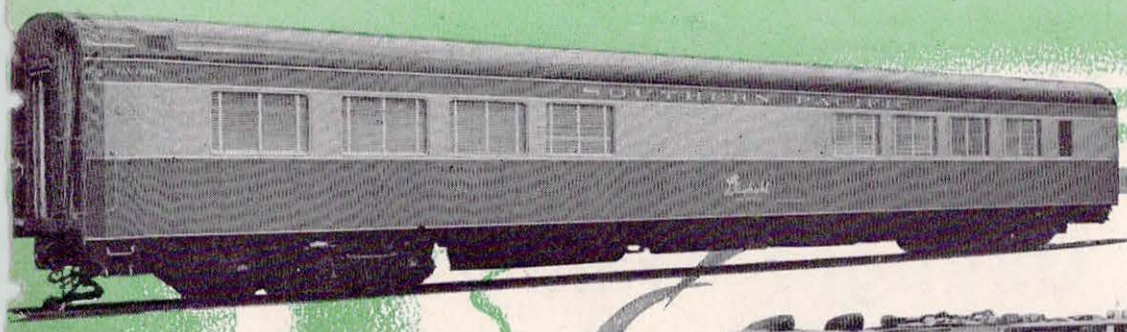
FABREEKA PRODUCTS COMPANY INCORPORATED

222 Summer Street, Boston 10, Mass.

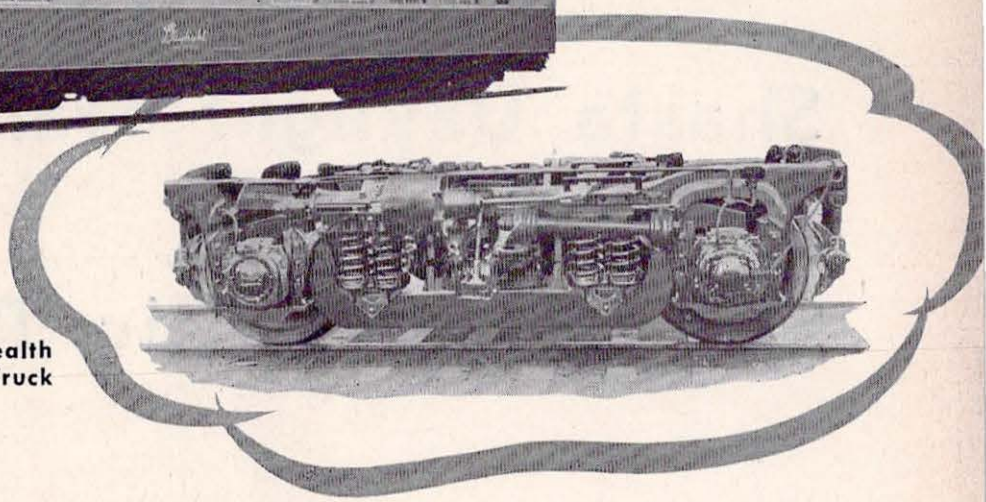
COMMONWEALTH TRUCKS

Assure Safe, Comfortable Riding

for Southern Pacific's New "Shasta Daylights"



Cars built by Pullman-Standard



Commonwealth
4-wheel Truck

The Southern Pacific's two new 15-car Diesel-powered "Shasta Daylight" luxury coach streamliners operate daily between San Francisco, Calif., and Portland, Ore.

Each train consists of 9 chair cars, a baggage-postal car, tavern car, parlor observation car and a 3-car articulated unit comprising a coffee shop, a kitchen and a dining car.

Single cars are equipped with **COMMONWEALTH** 4-wheel trucks with all-coil springs and bolster anchors. The 3-car articulated units have both **COMMONWEALTH** 4-wheel and 6-wheel trucks.

These modern trucks with **COMMONWEALTH** one-piece alloy cast steel truck frames and bolsters assure great strength and durability, plus light weight and longer service life with a minimum of maintenance expense. Superior riding qualities, with passenger comfort and safety, are essential features of cars equipped with **COMMONWEALTH TRUCKS.**

GENERAL STEEL CASTINGS

Granite City, Ill. Eddystone, Pa.

All cars of the new

Shasta Daylight Train on the

Southern Pacific Railroad,

are equipped with

Timken Roller Bearings and Boxes

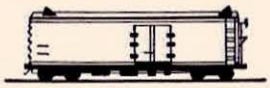
TIMKEN
TRADE-MARK REG. U. S. PAT. OFF.
RAILWAY ROLLER BEARINGS

THE TIMKEN ROLLER BEARING COMPANY, CANTON 6, OHIO
CABLE ADDRESS "TIMROSCO"

NOT JUST A BALL NOT JUST A ROLLER THE TIMKEN TAPERED ROLLER BEARING TAKES RADIAL AND THRUST LOADS OR ANY COMBINATION

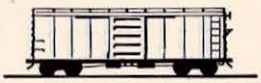
Right for Every Need

IN THE PAST FIVE YEARS, THE SMOOTH-ROLLING A.S.F. RIDE-CONTROL TRUCK HAS BEEN SPECIFIED FOR

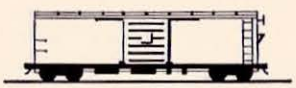


- over 20,000 refrigerator cars, because it *protects lading*

- more than 48,000 hoppers and gondolas, because it *reduces maintenance* on car and roadbed, both



- nearly 62,000 box cars, because it's *so easy* on rolling stock and contents

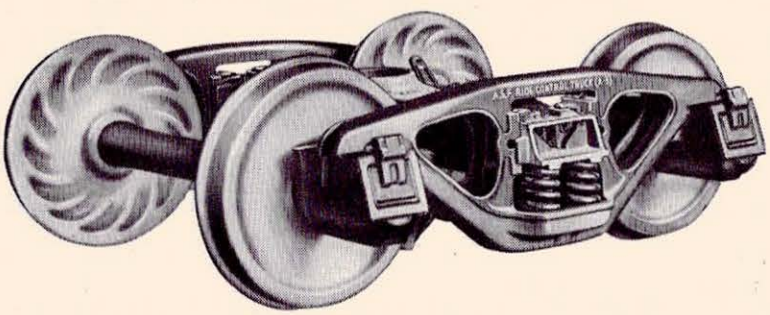


- box-express service on ten different lines, because it's truly the *all-speed truck*

Users know that the Ride-Control Truck is built to beat high maintenance and keep revenue rolling at lowest cost —*whatever* the service requirements.

A-S-F *Ride-Control* TRUCK

CONSTANT FRICTION CONTROL
LONG SPRING TRAVEL



Visit the Chicago Railroad Fair

AMERICAN STEEL FOUNDRIES

MINT MARK OF ⬡ FINE CAST STEEL

The Milwaukee Road

WEST IOWA AND DAKOTA DIVISION

Standard HD Diesel Oil

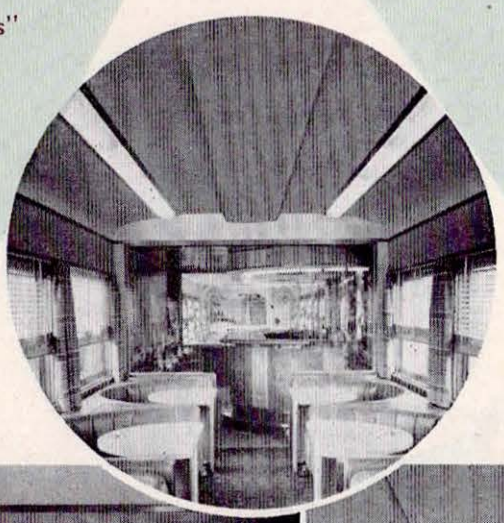
. . . on the Milwaukee Road

Nine Alco-G.E. road switchers are lubricated with Standard HD Diesel Oil on the Chicago, Milwaukee, St. Paul and Pacific Railroad. These Diesels have cut running time on the West Iowa and Dakota Division. Standard HD Diesel Oil contributes its part in cutting turn-around time and stretching mileages between overhauls. In addition, many runs of the Milwaukee Road's famous Hiawathas are powered by engines lubricated with "Standard HD."

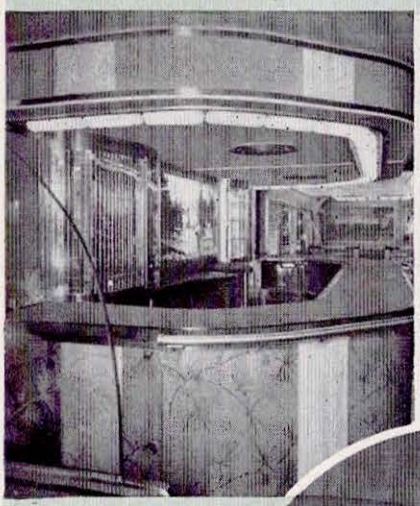
This is another of more than 60 railroads that now use Standard Diesel Lubricants on the heaviest passenger and freight runs. These detergent-type heavy duty lubricants contribute to low maintenance and operating costs. Standard Oil Company (Indiana), 910 South Michigan Avenue, Chicago 80, Illinois.

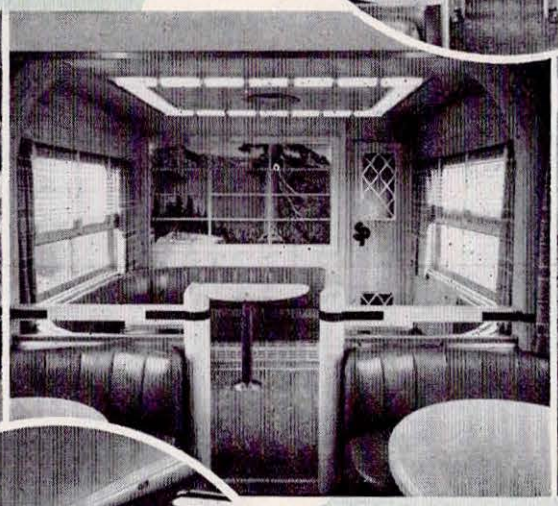
STANDARD OIL COMPANY (INDIANA) STANDARD

Another achievement for America's Railroads in modern car design "takes to the rails" —the Southern Pacific's new luxury streamliner, the Shasta Daylight — and again Luminator engineered lighting provides the sparkle that heightens the charm and beauty of interiors. . . . .

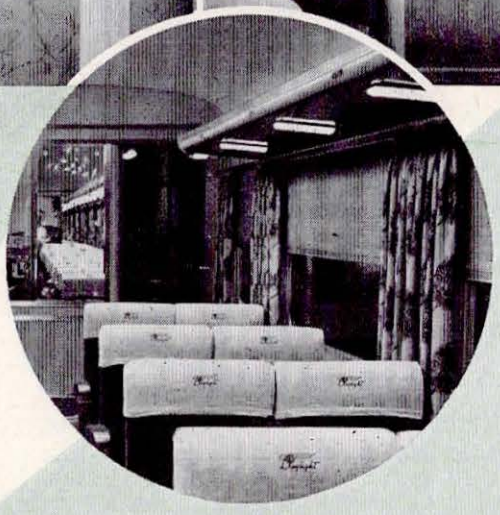


Right and Below: Tavern Car





Left: Chair Car. Above: Coffee Shop Car



Photos Courtesy Pullman-Standard Car Mfg. Co.

Luminator developments in the advancement of fluorescent and incandescent lighting techniques are recognized by car builders and railroad management alike as an important contribution to the comfort and convenience of travel — to the enjoyment of a trip.

LIGHTING ENGINEERS • DESIGNERS • MANUFACTURERS

LUMINATOR inc.

120 NORTH PEORIA ST., CHICAGO 80, ILLINOIS

IN CANADA: RAILWAY AND POWER ENGINEERING CORP.

THERE'S NO BETTER PROOF OF HIGH QUALITY!

Write today for Pittsburgh's new booklet which lists its complete line of Railway Structural Maintenance Finishes. Included are many practical suggestions for their efficient, economical use.

Many of America's Leading Railroad Lines Depend Upon

PITTSBURGH RAILWAY FINISHES

CONTINUED preference for Pittsburgh Railway Finishes by many of America's foremost railroad systems must be considered an unusual tribute to their high quality. For these companies have found that Pittsburgh Finishes can be counted on not only to give maximum protection but also to add to the appearance of rolling stock and fixed properties. Call on us for advisory service. Our wide experience in this field often can save you time and money.

PITTSBURGH RAILWAY FINISHES FOR EVERY NEED:

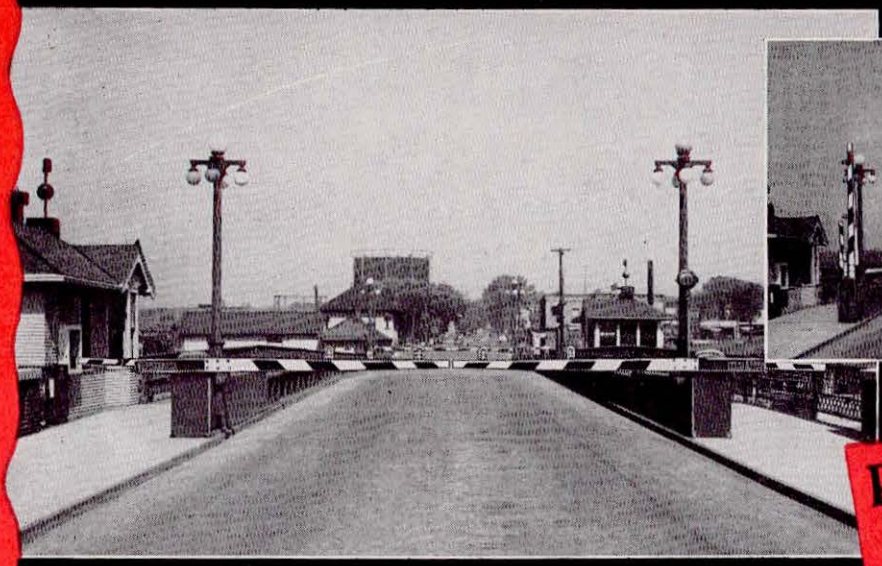
CARHIDE—for wood and metal freight cars of all types.
LAVAX SYNTHETIC ENAMELS—for locomotives and passenger cars.
STATIONHIDE—to add beauty and comfort to stations.
IRONHIDE—for iron and steel structures.
SNOLITE—for signs, fences, cattleguards and crossing gates.

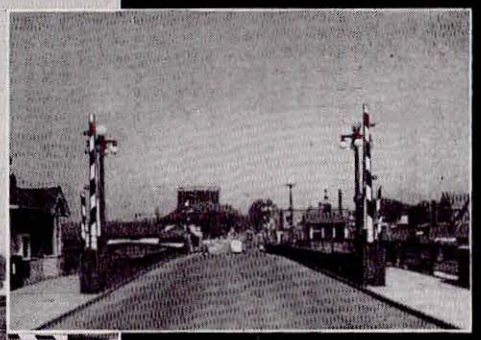
PITTSBURGH PAINTS

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY

A SURE CURE FOR TRAFFIC ACCIDENTS





WRRS

Rx MODEL N-N ELECTRIC GATES

For positive all-weather protection at BRIDGE APPROACHES *and* RAILROAD-HIGHWAY CROSSINGS

Fast, reliable operation is the big reason for the growing number of Model N-N electric gate installations at bridge approaches and railroad-highway crossings. These gates are usually controlled by manual or magnetic reversing switches and can be furnished for operation on any standard direct or alternating current: 110, 220, 440, or 550 volts; single or 3-phase, 60 or 25 cycles.

Four models are available, differing chiefly in gear ratio, which can be furnished for operating time of 7, 9, 11, and 13 seconds, to suit the length of wood arm being used.

Heavy duty motors are rated for continuous service, all types being capable of instant reversing action.

Limit switch—cam operated—provides quick make and break of all circuits, with self-cleaning contacts for gate travel limits, gate indication, interlock, warning bell, and gate arm lamp circuits as may be required.

Furnished with roadway arms only, or with both roadway and sidewalk arms. 75° or 90° angle of travel. Steady burning or flashing lights. Also folding metal fences.

Twelve-inch traffic bells—motor or magnetically operated—can be furnished for mounting on the cover of the gate mechanism.

PROMPT DELIVERY

We shall be glad to send you complete information about Model N-N electric gates.

Write for catalog
144-NN-RA7

Model N-N gates are manufactured by the maker of the famous "Model 10" automatic railroad-highway grade crossing signals; also electric pier and channel navigation lamps for both movable and fixed bridges. Descriptive bulletins available.

WESTERN RAILROAD SUPPLY CO.

2406-2428 SOUTH ASHLAND AVE., CHICAGO 8, ILL.

NEW! AVAILABLE NOW

Hystaway Hoe Front

For use with Hystaways mounted *on all* "Caterpillar" D8 and current series D7 track-type tractors

Ditch digging is fast and efficient with the new Hystaway Hoe. A narrow trenching bucket (23-in. cutting width) is available as optional equipment.

A HIGH SPEED, rugged NEW EARTH MOVING TOOL for *ditch and trench digging and basement excavating.* DOES ANY JOB that a CONVENTIONAL ½-cubic yard bucket (cutting width 33 inches) CAN DO.

The Hystaway Hoe Front will dig to a full 15 ft. depth. It has MORE REACH than a conventional back hoe—an EXTREMELY FAST SWING—an actual EXCESS of POWER because of the "Caterpillar" diesel tractor engine.

The Hystaway, mounted on a "Caterpillar" D8 or D7 track-type tractor with bulldozer, now provides four tools—dragline, clamshell, crane and the NEW BACK HOE—and full tractor mobility and maneuverability are retained.

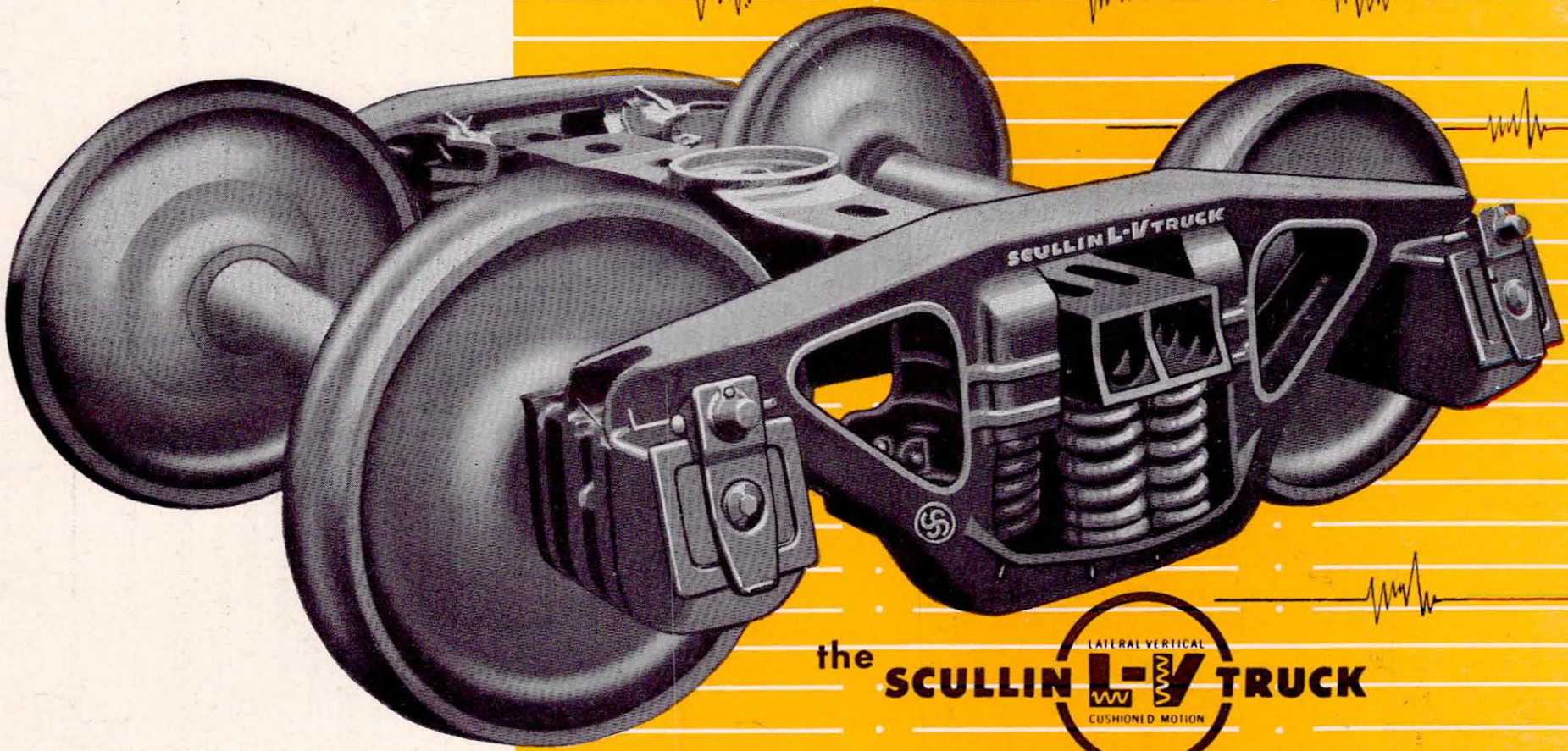
Current delivery. See your "Caterpillar" distributor.

HYSTER COMPANY

2932 N. E. Clackamas . . . Portland 8, Oregon
1832 North Adams Street . . Peoria 1, Illinois

HYSTER

dominates the ROUGHEST RAILS!



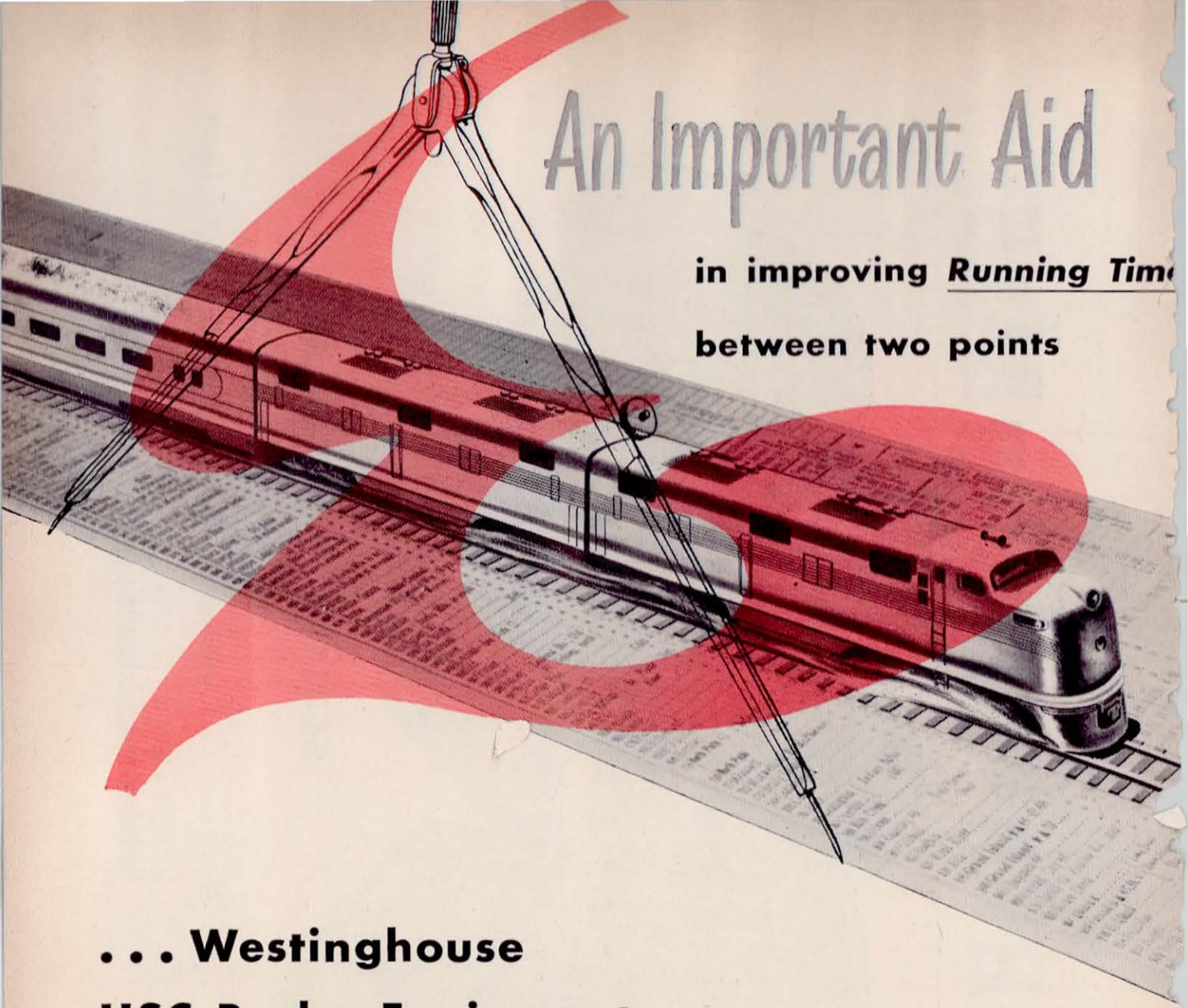
the SCULLIN L-V TRUCK
LATERAL VERTICAL
CUSHIONED MOTION

smooths the way for faster freight

50 YEARS PROGRESS

SCULLIN STEEL CO.
SAINT LOUIS 10, MISSOURI

NEW YORK • CHICAGO • CLEVELAND • BALTIMORE • RICHMOND, VA. • MEXICO CITY, D. F.



An Important Aid

in improving *Running Time*

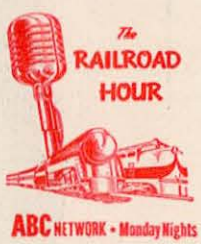
between two points

. . . Westinghouse HSC Brake Equipment

Any patronage-building improvement in *terminal-to-terminal* schedules must be brought about by improvements in intermediate *point-to-point* time—and that's where Westinghouse HSC electro-pneumatic brake equipment makes a big contribution.

This equipment permits later application when approaching speed zones, earlier release when leaving them. *Average* speeds can be substantially bettered, without increasing top speeds. Train control is smoother. Passenger comfort is enhanced.

HSC equipment, with supplementary controls, provides (1) simultaneous transmission of braking and release impulse to all cars in the train, (2) automatic proportioning of braking pressures to the speed for maximum retardation, and (3) "AP" Decelostat action, which immediately softens braking effort if wheel slip impends.



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Vol. 127, No. 3 July 16, 1949

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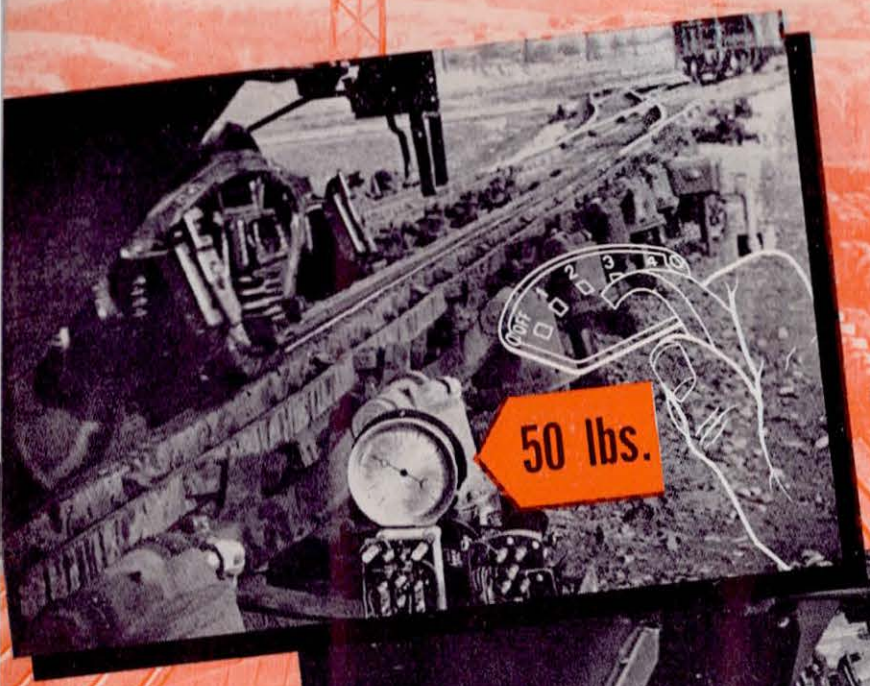

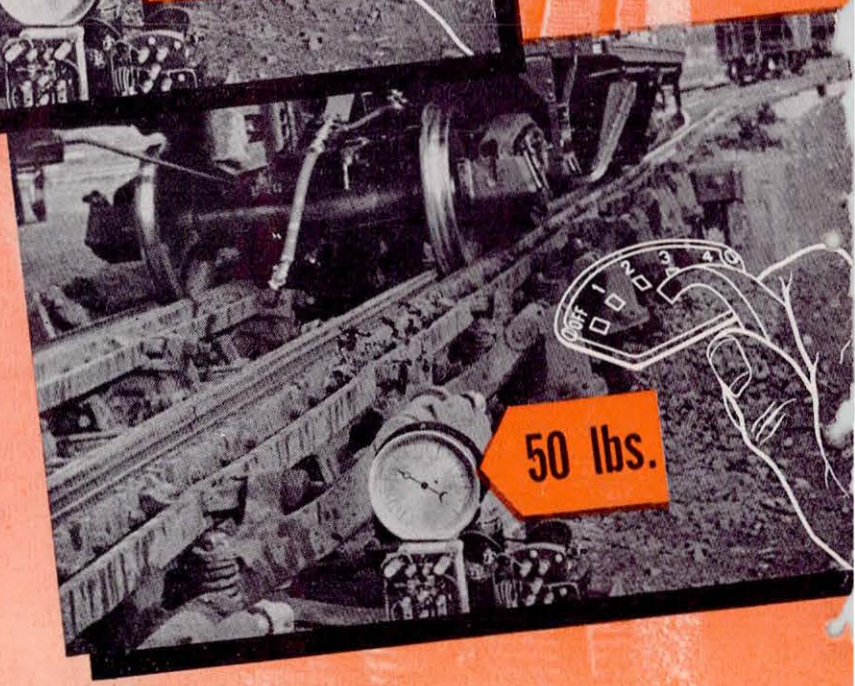

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WEEK AT A GLANCE

THE "SHASTA DAYLIGHTS": The names of the many new, or newly equipped, luxury passenger trains put into service by American railroads since the end of World War II read like a thumbnail summary of American history and geography. But none of these many trains has been more appropriately—or more graphically—named than the newest of them all—the Southern Pacific's San Francisco-Portland "Shasta Daylights," which bring new speed and new comfort to the S. P.'s famous "Shasta Route." A detailed description, amply illustrated, of the two Pullman-built 15-car trains begins on page 50, preceded on page 49 by pictures of a complete train en route through some of the magnificent scenery which the passengers will enjoy.

RELIEF IN SIGHT? In something of an economic about-face, President Truman has recommended repeal of the war-time excise taxes on movement of freight by common carrier—a proposal which, if adopted, may bring the railroads some measure of relief, as a partial offset to necessary rate increases. For details, see the News columns.

"CLARIFYING" AMENDMENTS: The "clarifying" amendments proposed by I. C. Commissioner Splawn to the so-called "radio-rules" bill (S.238—H.R.378) had the effect of making the bill a little less objectionable from the railroad standpoint. Consequently, the brothers don't like 'em. And they didn't hesitate to express their displeasure in their pet publication, "Labor." Fortunately, as our News section indicates, the carefully considered testimony of Commissioner Splawn seems, so far at least, to have carried rather more weight with the House subcommittee which is considering the bill than have "Labor's" noisy headlines.

IT LOOKS LIKE A LONG SUMMER: The Presidential fact-finding board which is hearing the request of the Brotherhood of Locomotive Firemen & Enginemen for extra firemen on Diesel-electric locomotives, in hearings now in progress at New York City, has asked for an extension of time, to September 19, in which to file its report. It expects to spend until August 19 in taking evidence, a fact brought out in our News story on the hearings during the week just ended. Meantime, the witnesses for the brothers drone endlessly on with "arguments" which, so far, at least, seem to have little bearing on the real point at issue.

SUBSIDIZED RAILROAD SERVICE: Unlike their highway, waterway and airway competitors, the railroads receive no subsidies from government or the public. But the users of many profitable railroad services are, nonetheless, required, by public policies, to subsidize, through unnecessarily high rates, the many unprofitable services—such as unremunerative branch lines and suburban commutation traffic—which the railroads, as the only true common carriers, are obliged to provide. Our leading editorial explores this idea in more detail, pointing out that the transportation situation as it exists today confronts the makers of national transportation policy with three alternatives. One of them must be adopted; otherwise, the policy of having no policy will eventually bring about the worst possible alternative—government ownership and operation, not only of railroads, but of all other types of transportation as well.

TO AVOID YARD DELAYS: By modernizing its big yard at Armourdale, Kan., converting part of it to a modern hump-retarder classification yard, and installing an up-to-date communications network, the Chicago, Rock Island & Pacific is moving cars through the yard in about half the time formerly required, and realizing substantial operating economies into the bargain. The modernization program is described, and the results achieved are outlined, in an illustrated feature article which starts on page 42.

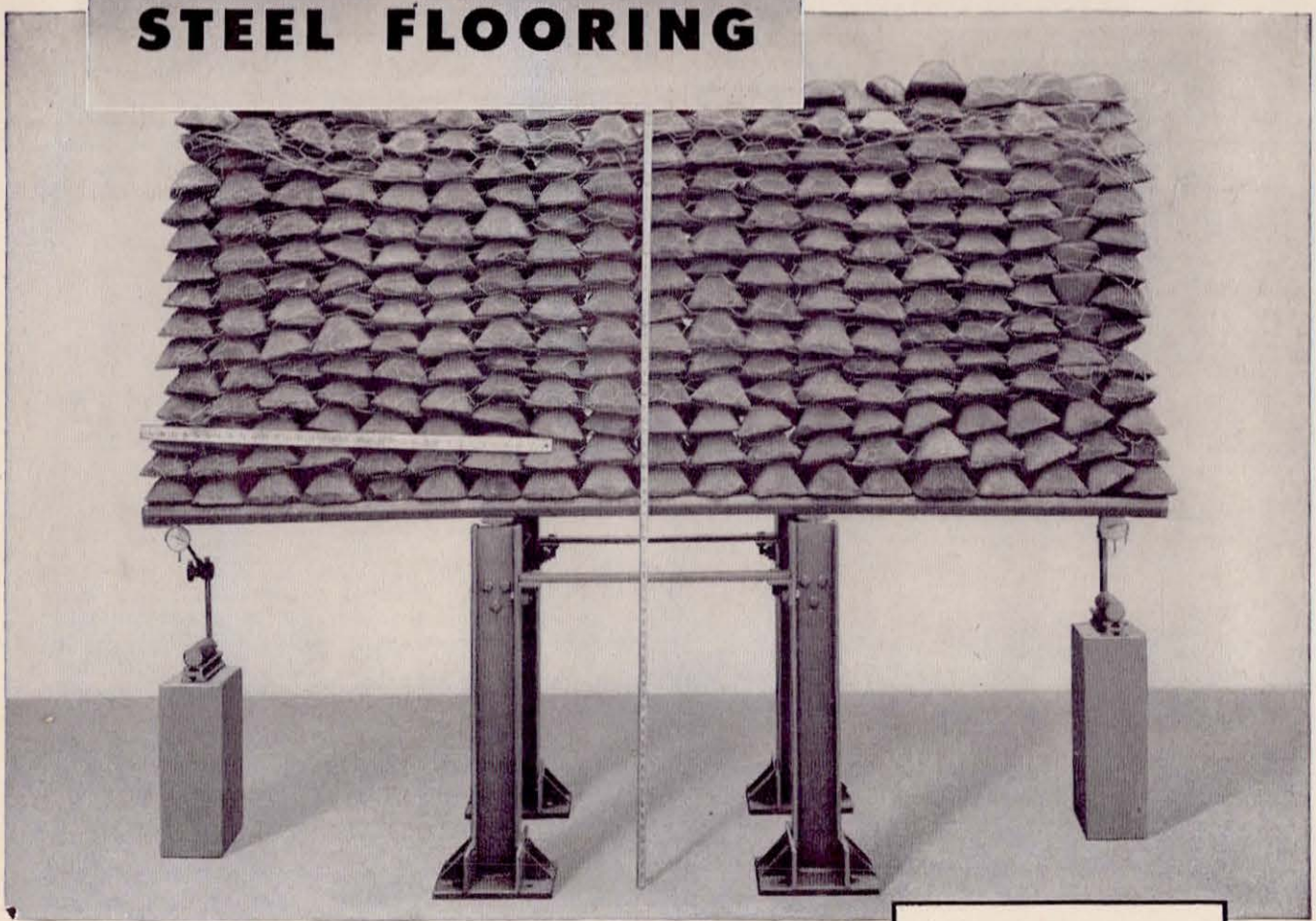
THE FUNDAMENTAL ISSUE: On pages 56 and 57 we reprint two "letters to the editor" of the New York Times, which appeared recently in that newspaper. One is by a spokesman for the American Trucking Associations; the other, an answer to the first, is by the editor of *Railway Age*. The fundamental issue, this second letter points out, is not how the real costs of transportation are presently assessed as between the users of transportation and the taxpayers; but whether transportation — including inter-city commercial trucks — is to be all self-supporting or all socialized.

STILL NIBBLING AWAY: Air line passenger-miles in 1948 were less than in 1947—but not down as much as first-class, i. e., parlor and sleeping car, traffic on railroads. In other words, the air lines' proportion of total first-class passenger business in 1948 was larger than in earlier years, which means that the subsidy-aided air carriers are still nibbling away at the traffic of self-supporting railroads. Those facts were brought out in the latest issue of the "Monthly Comment" of the I.C.C.'s Bureau of Transport Economics and Statistics. The "Comment" also reviews losses in dining-car service, changes in capitalization, and a variety of other topics, all of which are covered on pages 47 and 48.

SPEAKING OF PASSENGER BUSINESS: Luxury trains, like the "Shasta Daylights," pretty generally make money for the railroads which operate them. But passenger business as a whole is a losing proposition because of the enormous increases in wages and material costs and in taxes which have been forced on the railroads during and since the war. Hence, the roads in the Eastern district and Pocahontas region—with one or two exceptions—are asking for an increase of 12½ per cent in basic passenger fares, as one means of helping to put passenger service on a more nearly self-supporting basis. Their arguments for the increase, as presented to the I. C. C. this week at Brooklyn, N. Y., are summarized in our News account of the hearing.

STOP DANGEROUS AND COSTLY BOXCAR FLOOR BREAK-THROUGH WITH NAILABLE STEEL FLOORING

In Detroit Testing Laboratory test to determine cantilever strength, 11,000 lbs. of pig iron were loaded on a panel consisting of three NAILABLE STEEL FLOORING boxcar channels welded side by side. The cantilever span was 30". Under this floor load of 733 pounds per square foot—far in excess of heaviest freight loading—the NAILABLE STEEL FLOORING section *hadn't even reached the yield point.*



In actual use as well as in laboratory tests it has been proved that NAILABLE STEEL FLOORING can't break through under *any* kind of heavy freight. Boxcars with NAILABLE STEEL FLOORING have safely hauled heavy copper cakes, automobile engines, highly concentrated loads of sheet steel and tinplate as well as hundreds of other commodities.

No Fork Truck Break-Throughs Either

NAILABLE STEEL FLOORING supports the biggest fork trucks, too, which so often break through conventional floors. For example, 23 cars are spotted each day at the Wabash Railroad's Ford Loading Dock in Detroit. Although they're all new or recently rebuilt, an average of *five* or *six* cars per day come in with large holes somewhere throughout the length of the floor where fork trucks have broken through.

Durability Means Low Maintenance . . . Low Operating Costs

NAILABLE STEEL FLOORING stops the break-throughs—and a good many other common floor troubles. It isn't chewed up by pinch bars or rough freight. Although nails are tightly clinched, they don't tear, splinter or deform the floor. All this adds up to lower maintenance costs — and lower operating costs as well. When floors stay in good condition for all types of freight, cars require less switching and empty movement.

To eliminate dangerous break-throughs and reduce maintenance costs, specify NAILABLE STEEL FLOORING for the next boxcars you build or rebuild.

"Many delays and potential accidents have occurred and are continuing to occur, due to pig iron, lead, copper bars and similar commodities breaking through boxcar floors . . . this condition . . . is due to the type of equipment selected for this type of loading." (Car Department Officers Association Report by Committee on Preparation of Freight Cars, September 20, 1948)

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SUBSIDIZED RAILROAD SERVICE

The American railroads have, almost since their inception, performed "social services" for which they have not received compensatory payments from the direct beneficiaries. They have been required to keep branch lines going far beyond the time when these lines have ceased to earn expenses—solely to preserve the economy of direct railway service to communities which would be at a serious disadvantage without it. Many trains continue to be scheduled when their earnings no longer meet out-of-pocket costs of operation, just to provide service of a frequency which satisfies patrons' "demands" but which they are willing to pay for only in part.

When the recent war came along—with its increase of 100 per cent in freight traffic and 300 per cent in passenger traffic—the railroads were able to meet the staggering calls upon their services because they had assumed the cost, throughout the entire decade of the 1930's, of maintaining in usable condition a plant with a "stand-by" capacity at least double that for which immediate need existed. When the war came, it was the railroads which assumed practically all of the nation's increased burden of transportation—for the very good reason that the railroads were and are the only transportation agency which has ever accepted the obligation *and the expense* of preparing to cope with such emergencies.

In the matter of suburban passenger transportation in the environs of the largest cities, the railroads haul daily "commuters" at rates which are probably closer to pure philanthropy—the cost of the operation being considered—than can be found anywhere else in modern business. Back in the 1920's and before, the provision by the railroads of services which did not pay their way seldom presented much of a problem, either to the railroads or to the nation. The railroad industry was then earning enough despite the absorption of the losses from these services to keep the average prices of its stocks above 100. It could readily attract all the investment capital it needed for additions and improvement to plant, by the sale of bonds—and even, in the case of a few companies, by the sale of equities. Since practically all of the nation's commercial traffic—freight as well as passenger—then moved by rail, the cost of the "social services" the railroads afforded was spread equitably in the general rate structure over the entire economic life of the nation.

Still Being Philanthropic

The situation has changed completely today. The railroads are still engaged in philanthropy, just as they were in the 1920's, but the losses incurred from such services are no longer spread fairly and imperceptibly over the entire range of the nation's commerce—because so much of this commerce is now moving otherwise than by rail. Indeed, the

carriers which use public property—highways, waterways, airways—as a place of business, either free or at fees which do not defray the costs, are *recipients* of assistance from the body politic, rather than contributors to such assistance, as the railroads are.

It is plainly evident that the absurd disparity in the treatment the railroads get, compared to the favors accorded to users of government-owned transportation plant, will not work much longer. Railroad stocks have not sold at par since 1931. The railroads cannot, speaking generally, raise money for improvements to their fixed property by the sale of either bonds or stocks—and as a matter of fact, have raised no new fixed-plant investment money of any consequence for the past 18 years. Such improvements to this plant as they have made have, perforce, been paid for out of earnings—which means that, for every $62 so invested, $100 has to be earned in net income, taxes being what they are. The government of the United States not only insists upon its 38 cents out of every sacrificial dollar of stockholders' money reinvested in railroad plant but is even trying improvidently to extract $2 or $3 billion from the industry for alleged excessive charges paid for transportation service during the war.

The fact is that a lot of service rendered by the railroads to the American people is subsidized and always has been subsidized—that is, it is paid for in part by others than the direct beneficiaries. The cost of this subsidized railroad service was equitably spread over the country's entire commerce so long as the railroads had a virtual monopoly of commercial transportation. Since alternative means of transportation have now been provided—by highway, water and air—where patrons *receive* subsidies instead of having to pay them, purchasers of transportation are in growing numbers refusing any longer to contribute to the unprofitable "social services" which the railroads are still forced to provide. As these purchasers of transportation have withdrawn their contributions to these philanthropic activities, the burden has fallen upon railroad investors; and the investors, in turn, have made known their refusal to engage any further in such transportation philanthropy by declining to put more of their money into new issues of railroad stocks and bonds.

Three Alternatives

The makers of national transportation policy are thus confronted with three alternatives, viz.

1. To permit the railroads to discontinue their unprofitable "social services"—a solution which is largely impracticable, at least as far as providing "stand-by" transportation capacity for military emergencies is concerned;

2. Transferring the cost of the railroads' "social services" from railroad patrons and investors to the whole community through remission of railroad income and property taxes and/or public assumption of the cost of providing unremunerative railroad facilities—e.g., suburban lines and decorative passenger stations—as grade crossing elimination is, in large measure, already provided*;

3. Requiring *all* agencies of transportation—and not just the railroads, as at present—to assume charges equivalent to full costs of service; and requiring *all* agencies to bear a *pro rata* share of the unprofitable "social services" with which, so far, only the railroads have been burdened.

This third alternative is the one which all firm and informed friends of private enterprise would prefer, as being the one which would involve the minimum of government intrusion into transportation. It is an alternative, however, which would require a lot more self-disciplined foresight on the part of the immediate beneficiaries of the substantial government subsidies now given to transportation by highway, waterway and air than these beneficiaries have shown to date. Since the first alternative involves a sacrifice of the nation's military strength which is scarcely conceivable, the second alternative thus seems the more likely of adoption. This alternative could either be chosen deliberately, with safeguards to keep the purely commercial part of railroading on a strictly private-enterprise and self-supporting basis; or it could come about by default, by allowing the railroads to fall into government ownership—in which case it would probably not be just their present philanthropic services which would become a burden upon the taxpayers.

In national policy-making for transportation, not having any consistent policy at all constitutes, in itself, the adoption of a transportation policy—namely, drifting into the worst of all the available alternatives.

TEST PERIOD AHEAD

During the next year or two close observers of railway maintenance-of-way practices and costs are going to keep their ears fastened more tightly to the ground than ever before. During this period these practices will undergo a severe test, and their performance under fire is going to determine largely

* Such assumption by the public treasury of the cost of philanthropic railroad services would not, be it noted, constitute a subsidy to the railroads' regular commercial services or to the railroads themselves, as other forms of transportation are now subsidized—but would merely relieve railway patrons and investors from the cost of *existing subsidies* which can no longer be collected from them anyhow. Furthermore, it might not be necessary for the public treasury to absorb *all* of these costs. As a practical matter, the process would need to be pursued only to the point necessary (1) to make the rate concessions necessary to restore to the railroads the long-haul traffic they have lost for purely political reasons to subsidized transportation by highway, waterway and air; and (2) to raise railroad earnings and prospects to the point where railroad stocks and bonds could once more be readily sold to investors.

whether they must undergo major changes to get greater efficiency and economy.

For years a small group of individuals, all experienced maintenance men, have been openly and severely critical of present methods of track construction and maintenance, insisting that many opportunities for effecting important savings are being neglected.

Some of these individuals confine their criticism to details of the track structure or of the methods followed in maintaining it, but others assert that important changes in basic concepts offer the only hope for substantial economies.

It is not the purpose of this discussion to comment on either the nature or the validity of these criticisms.

Quite likely future experience will provide the only trustworthy answer. However, several observations are in order at this time. One is that, instead of becoming discouraged over their lack of progress, the critical individuals have persevered in their efforts and are even gaining strength through new additions to their ranks. Another is that, regardless of its merits, the criticism is proving beneficial in at least one respect—it is an effective deterrent against a feeling of complacency on the part of maintenance men in responsible positions.

Now has come the 40-hr. week to bolster the position of those who are critical of present practices. A stark fact is that the shorter work week must not be allowed to result in more than a slight increase in maintenance costs. And there can be no retreat from the high maintenance standards that have become commonplace today. It is true that most railroads are planning to take steps calculated to minimize the added cost of the 40-hr. week, but to a considerable degree these measures consist of the extension or intensification of present practices and do not contemplate any changes in fundamentals, as advocated in some quarters.

Thus, present maintenance practices are facing a crucial test.

Events of the next few years will prove whether these practices will be equal to the situation or whether they must be revamped in important respects in order to keep maintenance expenses within reasonable limits. It will be for the purpose of resolving this question that, beginning September 1, maintenance costs and results will be studied with unusual care by many sharp eyes.

NO NEW CARS— NO IMPROVEMENTS

In his address before the annual meeting of the Mechanical Division of the A.A.R., at Chicago during the last week in June, J. H. Aydelott presented the rosy side of the freight-car situation on the railroads at the present time. The addition of 250,000 new cars and the retirement of 240,000 old cars in a little less than three and one-half years; 30,000 cars repaired per month, many of which have been upgraded; an increase in box cars on home lines from a low of about 17 per cent to 44.4 (as of May 15) are all facts indicating that the railroads have done well in improving freight-car inventory.

The aspect of the situation which is considerably less rosy lies in the outlook for the future. Mr. Aydelott refers to the bearing which freight-car conditions have on the payment of freight claims by the railroads. The loading of commodities in cars in unfit condition to carry the load without damage, he said, "influenced claim payments to the extent of more than three million dollars." But, he said, more than 35 million dollars was charged to unlocated damage, some considerable portion of which may have been due to the run-down condition of many box and refrigerator cars, "which qualities may be more or less inherent in the construction of the car itself." The railroads, he said, hope to improve the riding qualities by developing better trucks and improving wheel conditions.

The gloomy part of this picture is the fact that orders for new freight cars are not being placed. Whether the reason is a dislike of current prices or a recession in the urgency of the need for additional freight cars, it promises a cessation of further improvement in freight-car conditions when the current backlog of orders is cleared up. The 250,000 new cars installed and the 240,000 cars retired during the past three and one-half years have by no means removed the major portion of the freight rolling stock, the poor riding qualities of which are more or less inherent in the construction of the cars. Trucks capable of greatly improved riding qualities at all speeds—as compared with the present A.A.R. standard coil-spring type—are available. Any condition which delays the opportunity for increasing the number of cars equipped with such trucks produces a definite future handicap for the railroads in a situation constantly growing more competitive.

The railroads must have either much higher revenue from fares, or sharp reduction in operating costs, to break even on passenger service.

The time is approaching when this problem must have far greater attention as a matter of public policy. The community continues to pour enormous subsidies, through an ever-expanding superhighway system, into the chief competitor of public transportation—the private automobile.

In so doing we are steadily accelerating the major headache of all metropolitan communities, the traffic problem. Some day we will be driven to admit that we cannot provide enough streets and highways for every individual to drive his own automobile into the congested area.

Prudent foresight should dictate a governmental policy toward the railroads and other public carriers that will enable them to do their part, by offering better service, in solving the urban transportation problem.

—*The Chicago Daily News*

The new Armourdale classification yard has 40 tracks arranged in six groups. This night view from the hump illustrates the effectiveness of the floodlighting system

Improvements Double Speed of Big Yard

Modernization of Rock Island's large terminal at Armourdale, Kan., including installation of modern hump-retarder layout, results in faster handling of cars and other important economies

---

With the primary objective of rendering better service to its shippers the Chicago, Rock Island & Pacific has spent more than $1,500,000 in modernizing its extensive yard facilities at Armourdale (Kansas City), Kan. In this project the road converted a portion of the old flat yard into a modern 40-track hump-retarder classification yard with a daily capacity of 4,000 cars, and made other changes to obtain receiving and departure tracks of sufficient length to permit 125-car trains to be handled without doubling. It also installed a communication network that includes loud-speakers, radio, telephones, teletype and intercommunicating units. As a result cars are now being moved through the terminal in about half the time formerly required, and at the same time the road is realizing substantial economies in operating costs—economies that are expected to return the cost of the improvements in less than two years.

Armourdale yard might be termed the freight hub of the Rock Island. Through this yard moves practically all through east-west traffic carried by the road. In

both directions from this point the company's 8,000-mi. system fans out to serve rich producing and consuming areas. East and north there is a network of lines east to Chicago and north to Minneapolis-St. Paul, while a separate line reaches to St. Louis. West and south the system branches out again, with one line extending to Denver and Colorado Springs, another to Tucumcari, N. M., where connection is made with the Southern Pacific to form the "Golden State route" to the Pacific coast, and a third reaching down through Oklahoma and Texas to Dallas, and thence via the Burlington-Rock Island to Houston and Galveston.

The Road's Freight Hub

Not only does Armourdale serve as the gateway for east-west traffic moving over the company's own lines, but it also must handle traffic interchanged locally with 11 other roads. During an average month about 120,000 cars are handled through the yard, although the volume may be expected to reach a peak of 150,000 cars monthly at the height of the wheat and cantaloupe movements.

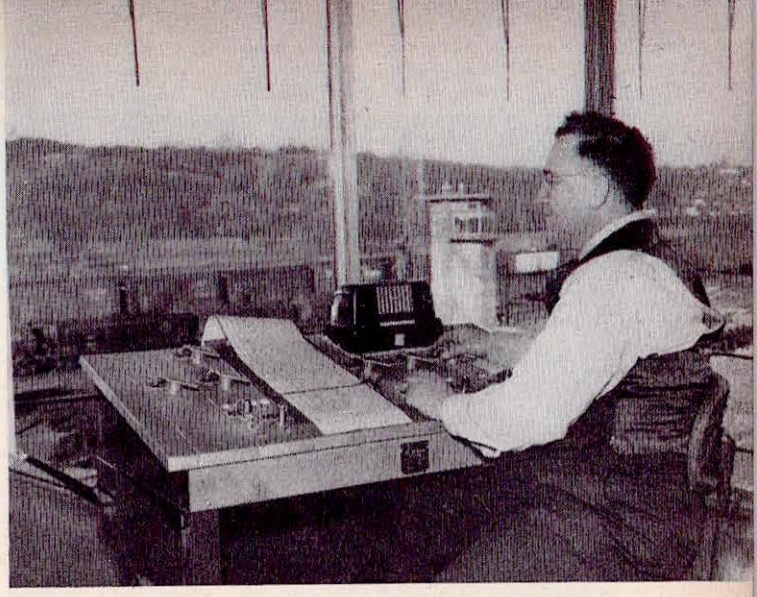
Armourdale yard is arranged in an east-west direction, extending westward from Second avenue for a distance of nearly three miles. On the north it is flanked by the double-track main line of the Union Pacific and by tracks of the Kansas City Terminal. From Kansas City to Topeka, Kan., the Rock Island operates over the Union Pacific, and at Armourdale yard it has three junction points with that road, the most westerly of which, Kaw Junction, is located at the west end of the yard. On the south side of the yard in the vicinity of Twelfth street the company has an extensive engine terminal and other mechanical facilities. The yard is spanned by viaducts at four locations, namely, Seventh street, Mill street, Tenth street and Eighteenth street.

Was Formerly in Three Parts

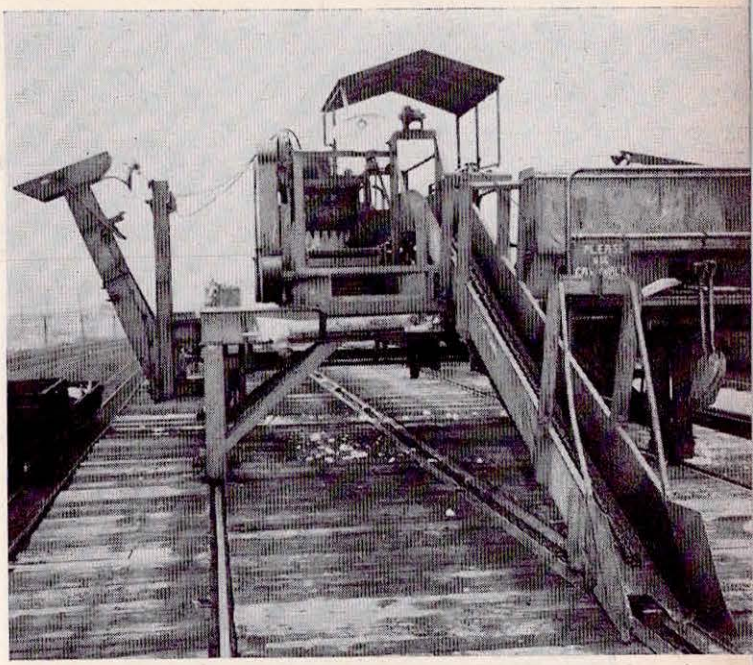
Before the recent improvements were undertaken the yard had three principal components, placed end to end. The easterly of these was known as the Seventh Street yard, the central as the Eighteenth Street yard, and the most westerly as the "New" yard, the latter designation deriving from the fact that the westerly unit, having been built in 1929, was the last of the three components to be completed. One of the newest structures in the yard was the main yard office on the south side in the vicinity of Sixteenth street; it was built in 1945.

Since a large volume of perishable traffic is handled through the yard an important element of the existing facilities was a timber icing dock, 1,962 ft. long, in "New" yard near its south side. This was a high-level dock and for 900 ft. of its length there was a lower deck for body icing on which two mechanical ice slingers operated. From an ice manufacturing and storage plant on the south side of the tracks, ice cakes were delivered to the dock by a conveyor located in a tunnel extending under the tracks.

Experience with the yard during the war years and afterward indicated a need for modernizing it to secure greater capacity for the purpose of relieving congestion and speeding up car movements, and also to re-



Each control tower is on an "intercom" hook-up with the other towers and the hump yardmaster, and each of them also has a teletype machine for printing switch lists



Two Rico Platform Icers have been installed on the upper deck of the icing dock. These machines break the ice cakes into the sizes desired and deliver them direct to the bunkers of refrigerator cars

The console in the general yardmaster's office has keys for 40 talk-back speakers and 10 paging speakers

The yard is blanketed by a system of talk-back and paging speakers. This talk-back speaker is in the classification yard

Oil is injected into the journal boxes of cars as they move up the approach track to the hump

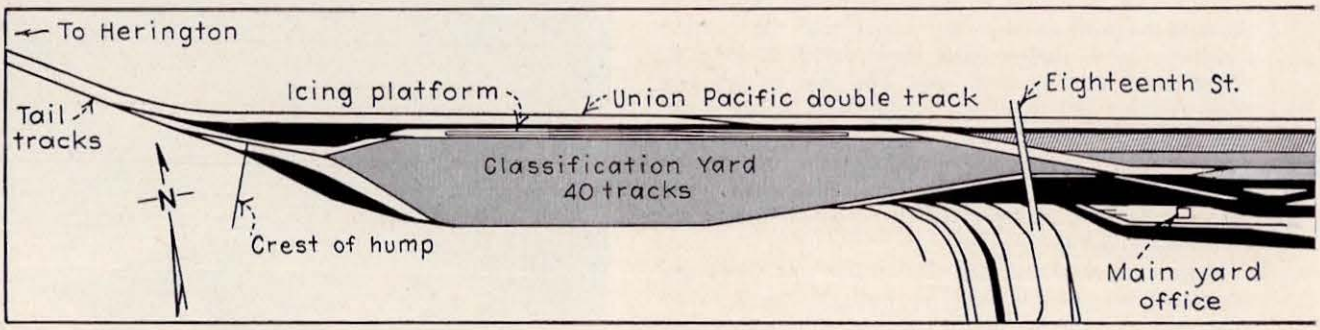
duce operating costs through greater efficiency. Careful studies developed the fact that the necessary additional capacity and greater efficiency could be obtained by proper utilization of the existing trackage, converting "New" yard into a modern hump-retarder classification yard, and making such other track changes as might be found necessary to provide receiving and departure yards of adequate length and other trackage required to assure the proper functioning of the classification yard.

In converting "New" yard into a gravity classification yard, a hump, requiring 27,000 cu. yd. of fill (which was obtained from a borrow pit about two miles to the west) was constructed at the west end and 40 of the existing tracks were incorporated into the yard, being arranged in six groups of four to eight tracks each. A factor in the design and location of the hump was the necessity of constructing two tail tracks, 8,000 ft. long, to the west of the hump, for use in humping cars. The amount of space available for these tracks was limited because at this point the Kansas river swings close to the railroad's property from the south. To allow room for the tail tracks the hump was placed a short distance within the limits of the west end of "New" yard, resulting in the tracks in this yard being somewhat reduced in length, although even as shortened they have capacities ranging from 27 to 64 cars.

Design Follows Modern Practice

The design and arrangement of the hump, the classification yard and related facilities generally follow conventional modern practice. There are 10 Union Switch & Signal Co. electro-pneumatic car retarders, and all switches at the entrance to the yard on the hump incline are equipped with electro-pneumatic machines, furnished by the same company, which are controlled from three towers. The leads are laid with new 132-lb. rail through the retarders, and the new trackage required beyond these points, through the classification lead switches, was built with new 115-lb. rail. No. 8 turnouts with self-guarded frogs were used. To minimize rail wear and to facilitate car movements into the yard a two-rail Meco rail and flange lubricator was placed on the main lead immediately below the first retarder.

Ample illumination of the hump yard for night operation is afforded by five floodlight towers, including an 80-ft. tower for lighting the hump, and four 100-ft. towers for lighting the yard, two at each end. Three



In this diagrammatic plan of the modernized yard the shaded areas show the hump classification yard, the receiving

other floodlight towers illuminate other components of the yard.

A single-story building at the hump crest for the hump yardmaster, a service building nearby and a building for housing compressors are all of concrete-block construction. The service building has separate lockers and showers for switchmen and tower operators, for crews of hump engines, and for the journal-box oilers. The compressor house contains, among other equipment, two Chicago Pneumatic compressors, each belt-driven by a 75-hp. General Electric motor. Also located in the compressor building is a shop for the use of the switch, signal and retarder maintainers. Outside the compressor house are two air-storage tanks, each with an atmospheric cooler.

The control towers, of brick, steel and concrete construction, are three stories high, with an automatic oil-burning hot-water heating plant on the first floor, and signal batteries, relays, etc., on the second. Both the second floor and the operator's office on the third floor are heated by Trane unit heaters. The operator's office in each tower is enclosed on three sides with glare-resistant glass windows fitted with "windshield" wipers, and is finished on the interior with asphalt-tile floors and acoustical ceiling. Equipment in each office, in addition to the control machine, includes a teletype printer, an "intercom" unit that is part of a system serving the three control towers and the hump yardmaster's office, a lavatory and toilet, and a water fountain.

Car movements over the hump are controlled by a color-light signal at the hump and six repeaters, which are operated by the hump conductor and, if necessary, by the operator in Tower "A." Since the switching locomotives assigned to the yard are equipped with radio, as described below, this medium may also be used for issuing humping instructions.

As cars move up the hump lead, oil is injected manually into the journal boxes on each side. The oil for this purpose is stored nearby in a buried tank car, from which it is pumped by one of two motor-driven rotary pumps housed in a small steel shed at the foot of the embankment. A switch controlling the pumps is placed in a box mounted on a post beside the track.

So hump locomotives may be serviced without moving to other points in the yard, fueling facilities and an outlet for water were installed adjacent to the hump. Fuel oil is stored in a buried tank car and is pumped to locomotives by a motor-driven Worthington vertical turbine pump.

As part of the work of transforming "New" yard into a hump-classification yard it was necessary to move the icing dock to the north side of the yard. In shifting the dock to its new location it was cut into 70-ft. lengths (five panels), and each length was then moved intact on a special flat car. The project also involved building a 400-ft. extension to the existing tunnel to reach the new location of the ice dock.

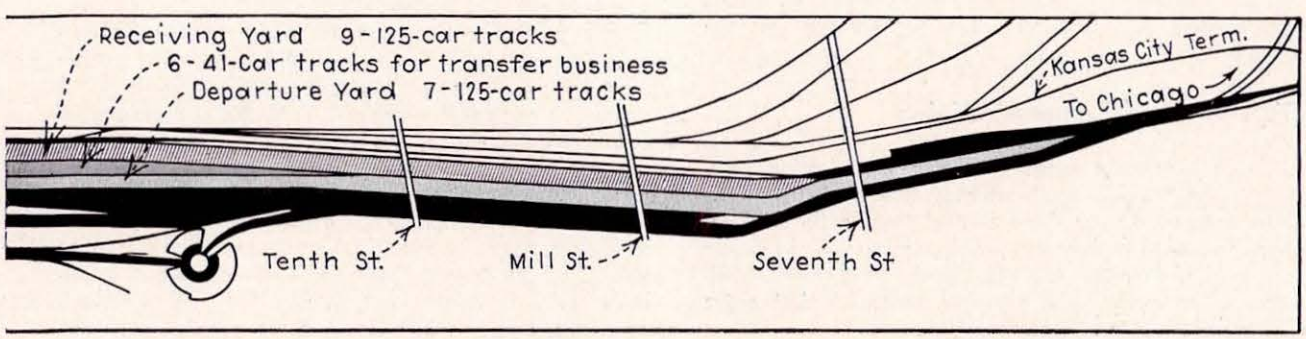
After the ice dock was moved its efficiency has been greatly increased by installing on the upper deck two Rico Platform Icers. These machines, weighing seven tons each and traveling under their own power on rails supported on the upper deck, pick up cakes of ice from the conveyor on the platform, break them in pieces of the desired size, and deliver the pieces through chutes directly into the bunkers of cars on both sides of the dock.

Each machine is operated by one man, and in addition two men are required on each side to open and close the bunker hatches. It is reported that with one of these units an average of only 40 sec. is required to ice a car. Aside from the greater speed and economy of machine operation as compared with manual icing, another reported advantage is the elimination of waste and delays from shrinkage of ice cakes placed on the platform in advance of the arrival of cars to be iced.

Other Changes Make 125-Car Tracks

Track changes required at the east end of "New" yard included the installation of a ladder track on the south side, cutting across about 11 tracks. This ladder and an existing ladder on the north side converge into a double-track lead extending into the departure yard. To provide departure and receiving yards of adequate length the Seventh Street and Eighteenth Street yards were joined by "cutting through" most of the tracks comprising them. In this way a receiving yard was created with nine tracks capable of accommodating 125-car trains. Similarly the departure yard has seven 125-car tracks. These two yards are generally parallel with each other, with the receiving yard on the north, and between them, adjacent to the east end of the classification yard, are six tracks for receiving strings of cars destined for transfer to connecting lines. Other features of the new track arrangement include a westbound running track along the north side of the yard and an eastbound running track along the south side.

Direct supervision over the operation of the yard is



and departure yards, and the tracks for handling transfer business. Dark areas represent other trackage

in the hands of three yardmasters, all reporting to the general yardmaster at the main yard office at Sixteenth street.

One of the three yardmasters is in charge of the hump and the "bowl" and is stationed in the small building at the crest of the hump. Another yardmaster, with an office at the Eighteenth Street viaduct, near the east end of the classification yard, has supervision over trimming operations and the making up of trains. The third yardmaster, stationed in an office at Seventh street, is in charge of the receiving and departure yards.

Communications Blanket Yard

As modernized, the entire yard is blanketed by a system of paging and talk-back speakers which centers in a console in the general yardmaster's office. This console has keys for 40 talk-back speakers and 10 keys for paging speakers, although the number of speakers actually installed to date is slightly less than the number of keys on the panel. Through the strategic location of the speakers in this system the general yardmaster is able to reach and converse with train crews or other personnel throughout the yard area, including the icing dock on which three talk-back speakers are located. Most of the talk-back speakers are outside but three of them are in buildings, including the hump yardmaster's office, the Eighteenth Street yard office, and one at Kaw Junction.

An unusual feature of the talk-back system is a hook-up at the console by means of which a car checker, using any of the talk-back speakers in the yard, can converse directly with a car clerk in the general yardmaster's office. The outside units are unusual in that each incorporates only one, instead of two, amplifiers. It is reported that the single 8-in. amplifier in each unit has a satisfactory range in both directions and that the man on the ground may carry on a conversation through one of the talk-backs from a distance of 50 ft. or more.

Direct communication between the various yard offices and switching locomotives is afforded by a two-way radio system which has a range of 15 miles. This system includes a 30-watt Motorola transmitter placed at the base of a 100-ft. tower. The transmitter is remotely controlled from five fixed points—the main office, the three yard masters' offices, and a switch shanty at Second street—by audio remote control units of the Electronic Communications Equipment Company. Mobile stations, consisting of Sperry equipment, are installed in 13 Diesel switchers. The equipment at the fixed control points is so arranged that it can be used as an "intercom" system between these five points, functioning independently of the stations in the switchers.

Teletype and Pneumatic Tubes

An important element of the communications system is the "round robin" intercom hookup between the hump office and the three control towers. So that defects in retarders, switches or signals may be promptly reported, the maintainers' shop in the compressor building was included in the intercom system. A sixth point in this hookup is at Kaw Junction.

Teletype is another communications tool employed to good advantage at the modernized yard. Consists of freight trains moving toward Kansas City are teletyped ahead for the preparation of switch lists. For westbound trains the consists are teletyped from Trenton, Mo., 100 mi. east of Kansas City, and for eastbound trains they are transmitted from Herington, Kas., 147 mi. to the west. Switch lists are prepared in the general yardmaster's office and transmitted by teletype to the hump crest and the three control towers. The unit in the hump office includes a duplicating printer which makes an extra copy of each switch list for the use of the hump conductor.

Waybills are shunted about the yard by a system of pneumatic tubes. As westbound trains pull into the receiving yard the waybills are dropped off at the Seventh Street yard office and immediately transmitted through a 4-in. tube, 6,000 ft. long, to the main yard office. Waybills from eastbound trains are sent from Kaw Junction to the main office by a 4-in. tube, 8,000 ft. long. In addition, there is a 3-in. tube for transmitting icing instructions, which extends from the main yard office underneath the tracks to the north side and thence to the icing platform.

Procedure and Progress

In starting construction work on this project the westerly part of "New" yard was taken out of service and the tracks removed to permit grading to proceed on the hump. While this work was in progress the easterly portion of the yard was used for storing cars. The work was started in September, 1948, and the hump was placed in operation on February 9 of this year.

At that time, six groups of tracks in the classification yard, comprising 23 tracks, went into service. Further progress in putting the classification yard into operation was dependent somewhat on the speed with which the icing dock could be moved to its location. This work was completed in time to permit the yard to go into full operation about May 15. In the meantime the work of making the other track changes was being carried out to interfere as little as possible with operation of the yard. Final work on the project was completed early in July.

All track work, as well as the installation of the signaling and communications systems and the moving of the icing dock was performed by company forces. The grading was done by Grosshands-Petersen, Inc., Marysville, Kan., the buildings were constructed by the Collins Construction Company, Kansas City, Mo., and the ice tunnel was extended by the List & Weatherly Construction Co., Kansas City.

This project was carried out under the general supervision of F. W. Thompson, chief engineer of the Rock Island. The communications system was designed under the general direction of C. O. Ellis, superintendent of communications, and the signaling system under the late C. R. Swensen, signal engineer, who died on June 7. The work in the field was under the direct supervision of J. T. Fitzgerald, construction engineer, until May 1, when he left to take charge of the construction of a new hump yard that the company is building at Silvis, Ill. After that date G. A. Gunderson, resident engineer, was in charge of the work at Armourdale yard.

Air Lines Still Building Passenger Business

I.C.C. bureau's "Monthly Comment" shows they performed 33.2 per cent of combined air and railway first-class passenger-miles during this year's first quarter; articles show dining-service losses and capitalization and working-capital trends

Domestic air lines performed 33.2 per cent of the combined air and railway first-class passenger-miles during this year's first quarter, as compared with 28.4 per cent in the same 1948 period, according to figures presented by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission in the latest (July) issue of its "Monthly Comment." The railway first-class passenger-miles included in the combined total are those of travelers in parlor and sleeping cars; and that traffic in this year's first quarter was off 7.6 per cent from the previous year while the air line passenger-miles were up 15.5 per cent.

The bureau's figures also showed that the air lines' proportion of the first-class passenger business rose from 11.1 per cent in 1945 to 34.6 per cent in 1948. The largest proportion handled by them in a prewar year was 13.1 per cent in 1941; and their 1938 proportion was 6.1 per cent. Air line passenger miles in 1948 were down 3.1 per cent from 1947, but first-class rail traffic was off 10.2 per cent.

Diner-Service Losses

Another article in the "Comment" compared the 1947 and 1948 results from operations of dining and buffet services by Class I roads. It showed that, for every $1 of revenue collected for such services in 1948, the carriers incurred direct expenses of $1.38, which did not include the cost of transporting dining cars nor any overhead costs. The $1.38 compared with a 1947 figure of $1.31. The aggregate loss from the service was $31.4 million in 1948, an increase of $5.9 million or 23.1 per cent above the 1947 deficit. The respective 1947 and 1948 revenues from the service were $83,400,000 and $82,270,000, while the expenses, in turn, were $108,952,000 and $113,712,000. The dining-service operating ratio was 138.22 in 1948, as compared with 130.64 in 1947.

Similar data were also shown for 19 large roads, i.e., those having over $1 million of dining and buffet revenue in 1948. There the range of 1948 dining-service operating ratios was from the Southern's low of 108.01 to the Chesapeake & Ohio's high of 183.66. Those two roads were also in the extreme positions in 1947, their ratios for that year having been 102.01 and 179.85, respectively. All of the 19 roads, except the New York, New Haven & Hartford and the Atlantic Coast Line, showed higher ratios in 1948 than in 1947. The drop in the New Haven ratio was from 127.82 to 124.21, while that of the A.C.L. was down from 125.85 to 117.46.

Reporting on changes in the capitalization of Class I line-haul roads, the bureau noted that the total long-term debt of those roads, as of the close of 1948, amounted to $8,960.5 million as compared with $8,831.8 million in 1947 and $10,462.8 million in 1943. Railroad reorganizations during the 1944-48 period were called an "important" factor in the 14.4 per cent reduction since 1943. That net reduction, however, was the composite result of declines in various other forms of debt which were partially offset by an increase of $667.4 million or 86.3 per cent in equipment obligations. Equipment obligations outstanding at the end of 1948 totaled $1,440,976,000 as compared with $773,604,000 as of December 31, 1943. Meanwhile, total of debt in default dropped from $757,808,000 to $139,267,000, while the total of receivers' and trustees' certificates dropped from $9,326,000 to $13,000.

Annual interest accruals on all classes of long-term debt declined from $443.4 million in 1943 to $315.8 million in 1948, or 28.8 per cent. This decrease "is double the corresponding percentage reduction in long-term debt," the bureau pointed out, adding that the "substantial" drop may be attributed "not only to the large absolute reduction of debt but also to the generally lower interest rates on reorganization debt as well as on refunding and other obligations issued, including equipments."

Working Capital

Other figures assembled by the bureau showed the net corporate working capital of the Class I roads as of April 30, 1949 and 1948. For the roads as a whole, the "quick assets" (cash and temporary cash investments) declined during the one-year period only 0.3 per cent—from $1,722 million to $1,716.5 million; but that small decrease was a composite of an $84.4 million drop in the "quick assets" of Western-district roads, and increases in other territories as follows: Eastern district, $10.4 million; Pocahontas region, $27 million; Southern region, $41.5 million.

As of April 30, 1949, the "quick assets" of Class I roads as a whole were sufficient to cover 86.6 per cent of the total current liabilities. The corresponding percentage one year earlier was 89.9 per cent. In the Southern region as of both dates "quick assets" exceeded current liabilities, the ratios having been 110.9 on April 30, 1949, and 106.6 a year earlier. The April 30, 1949, ratios in other territories were below 100.

As to net corporate working capital (total current

assets less total current liabilities), the figures showed that for Class I roads as a whole it dropped from $1,503.5 million on April 30, 1948, to $1,413.6 million on April 30, 1949, a decline of 6 per cent. The latter was a composite of 35.6 and 4 per cent increases in the Pocahontas and Southern regions, respectively, and respective declines of 8.9 per cent and 10.9 per cent in the Eastern and Western districts. Excluding materials and supplies, the net working capital for the roads as a whole dropped from $701.6 million on April 30, 1948, to $528.2 million on the same date this year, a decline of 24.7 per cent. This decline reflected a drop in all territories except the Pocahontas region where this "net" was up 235.8 per cent—from $5,787,000 to $19,434,000.

Four Months Traffic and Revenue

Analyzing revenue traffic statistics for the first four months of this year, the bureau noted that the freight volume, as measured by ton-miles, was down 9.1 per cent from that of the first four months of 1948. By territories the decreases ranged from 4.2 per cent in the Pocahontas region to 11.1 per cent in the Southern region. Meanwhile the freight revenue was off only 2.3 per cent, its failure to drop relatively as much as traffic having been due "primarily" to rate increases authorized by the commission, the bureau explained. The freight revenue for the Pocahontas region was up 5.8 per cent, as compared with decreases of 0.7 per cent in the Eastern district, 4.1 per cent in the Southern region, and 4.4 per cent in the Western district.

The four-months passenger business, as measured in passenger-miles, was down 11.7 per cent as compared with the first third of 1948. The passenger revenue was down only 3.9 per cent, because passenger fare increases, as the bureau said, "tended to compensate in some measure for the appreciable decrease in traffic." Later on in the "Comment" the bureau summarized the first-quarter returns of intercity motor carriers of passengers, showing that, on a passengers-carried basis, the business of these bus lines was down 7.9 per cent from that of the first three 1948 months. The comparable decline in the number of passengers carried by Class I roads was 13.7 per cent.

Traveler and Employee Fatalities

Another article presented figures and charts showing the trend of fatalities to travelers and employees in railway accidents since 1922. The traveler fatalities include those killed in railway accidents of all kinds—train, train-service, and non-train. Likewise the employee fatalities include employees, both on duty and off duty, killed in any of these types of accidents. The bureau explained its use of the all-inclusive figures in this way: "A certain amount of movement about the railroad premises is a necessary accompaniment of both rail travel and employment; consequently, to present the complete picture of safety levels, the fatality rates are based upon all rail travelers and employees."

As the bureau read the figures, the passenger fatality rates of the 1945-48 period "give definite promise of a return to the prewar downward trend, although the low rate reached in 1937 (1.26 fatalities per billion passenger-miles) remains a record." The 1948 rate was 1.31, while those of 1947 and 1946 were 1.63 and 1.79 respectively. The bureau calculated that the average of these rates of the past three years was 64.7 per cent below the five-year average for 1922-26.

The bureau saw the employee fatality rates showing a "distinct downward trend marred somewhat by a major upward bulge during the war years." The three postwar years, 1946-48, it added, "reflect a return to the prewar downward trend, each rate being below the previous record set in 1939." The latter figure was 0.211 fatalities per million man-hours, while the 1946, 1947 and 1948 rates, in turn, were 0.205, 0.210, and 0.179. The average rate for these last three years, the bureau calculated, was 27.2 per cent below the average for 1941-45, and 45.1 per cent below the average for 1922-26.

Communication . . .

When the Ox Begins to Bleed!

WASHINGTON, D. C.

TO THE EDITOR:

The attached editorial from the Wall Street Journal prompts another question:

Where were all these fighters against socializing this and that way back 25 years ago, when the railroads were fighting the inauguration of the Federal Barge Lines? For that matter, where are some of them right now? Down here in Washington, fighting for appropriations for more inland waterways and barge lines.

Nobody worries until his own ox starts to bleed! L.

[The editorial referred to in the foregoing letter reads as follows:

"The Charlotte (N.C.) News tells the story. A Charlotte doctor invited one of his friends, a real estate man, to a public meeting on socialized medicine. The friend said he couldn't make it.

"'Why, aren't you alarmed at the threat of socialized medicine?' asked the doctor. 'Sure,' said his friend, 'but where were you doctors all these years the real estate men have been fighting socialized housing?'

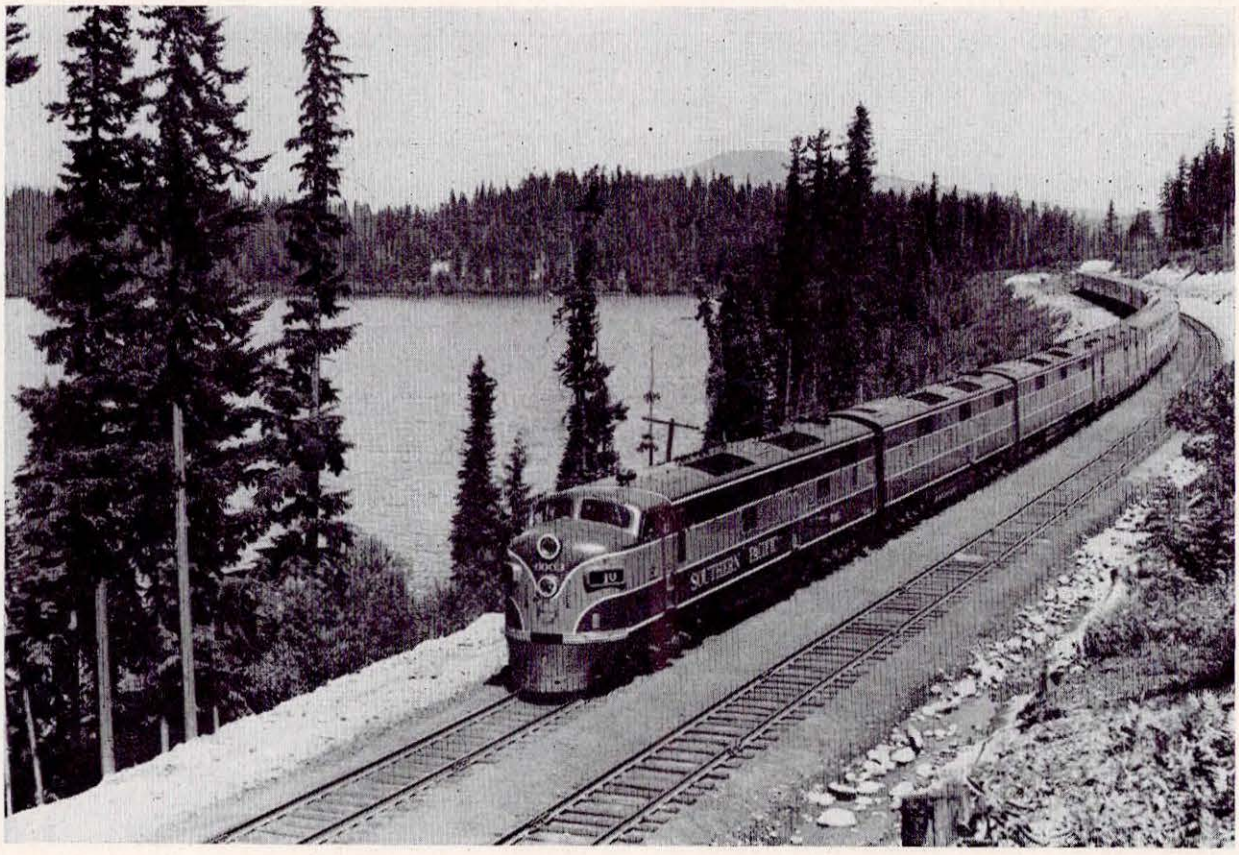
"The doctor had no answer for that.

"Everybody lets every interest group fight its fight alone. The doctors fight socialized medicine, the real estate men fight public housing, each business or industry fights its own battle against government encroachment. But never together.

"'Divide and conquer' is a marvelous strategy. It swallows its victims before they know they're bitten."]

San Francisco to Portland by "Daylight"

On July 10 the Southern Pacific placed in service between San Francisco, Cal., and Portland, Ore., a pair of luxury passenger trains, appropriately christened the "Shasta Daylights." The new trains—described in detail in another article in this issue—cover the 718 mi. between San Francisco and Portland, much of which is through mountainous terrain, in 15½ hr.—three hours faster than the present best train time and the shortest in the history of the "Shasta Route." Northbound, the ferry connection for the "Shasta Daylight," train No. 10, leaves the foot of Market street, San Francisco, at 7:45 a.m. The train departs from Oakland Pier, 4 mi. across San Francisco bay, at 8:10 a.m., and arrives at Portland at 11:15 p.m., making 11 intermediate stops. The average speed for the 714-mi. rail trip is approximately 47.5 m.p.h.



New Cars for the "Shasta Daylights"

Two 15-car trains, built by Pullman-Standard, embody extensive use of aluminum — One three-car articulated unit in each train — Other mechanical and color innovations

The two new Southern Pacific 15-car Diesel-driven "Shasta Daylight" streamliners which were placed in daily service on July 10, between San Francisco, Cal., and Portland, Ore., embody the same general structural design as previous S.P. "Daylights" built by Pullman-Standard and include generally the same refinements in interior details, except that the superstructures are made of aluminum instead of high-strength steel.

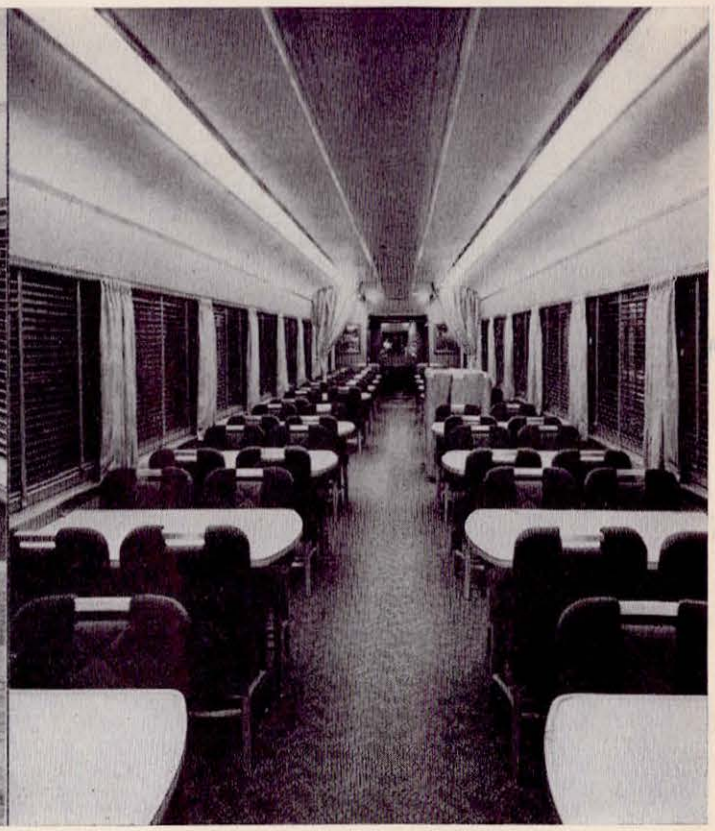
Motive power is supplied by two types of 6,000-hp. Diesel-electric locomotives, one built by the Electro-Motive Division of General Motors and the other a product of American Locomotive Company and General Electric. Each of the two trains includes a triple-articulated unit consisting of a coffee shop, a kitchen and a dining car (as in the previous trains); fluorescent lighting; luggage elevators in the chair cars; and radio and public address equipment throughout all cars, except the baggage-postal car.

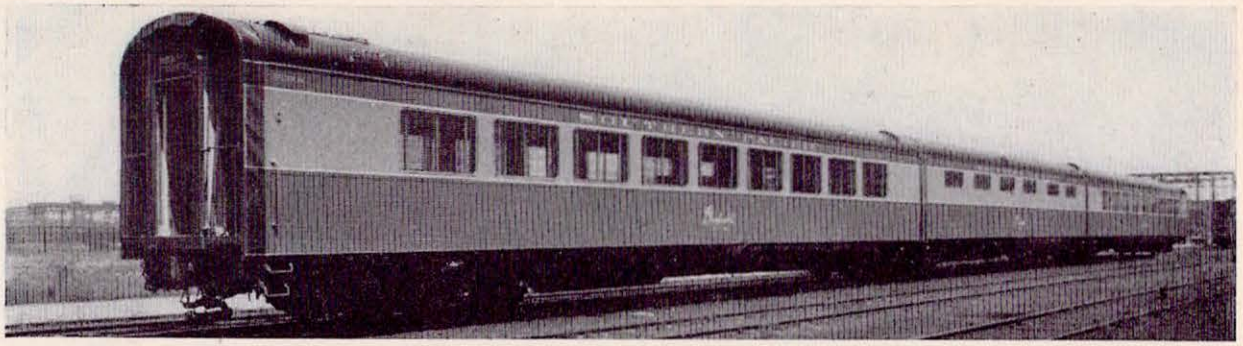
Electric power for the passenger-carrying cars and the air-conditioning is supplied by Waukesha equipment. The baggage-postal car has a Safety axle-driven body-hung generator. Heat for the kitchen range and the hot water supply is furnished by propane gas.

The consist of each train is identical and includes the following: one combination baggage-postal car; one

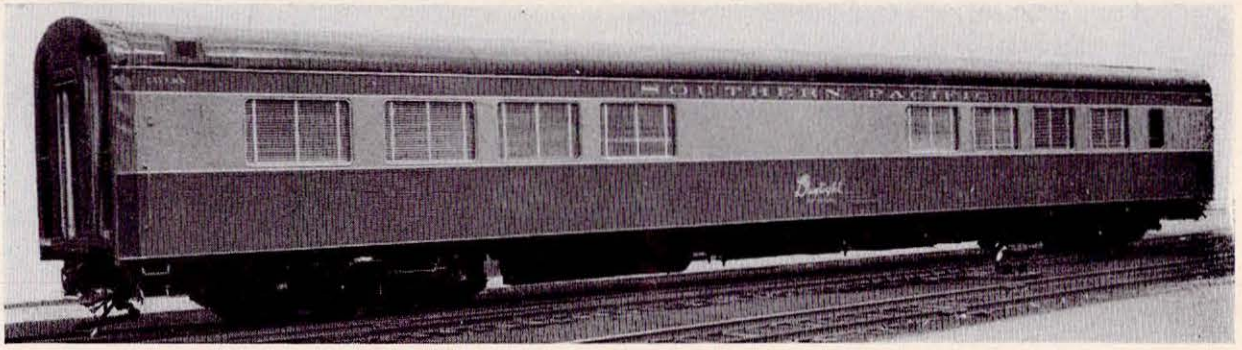
Coffee shop

Diner





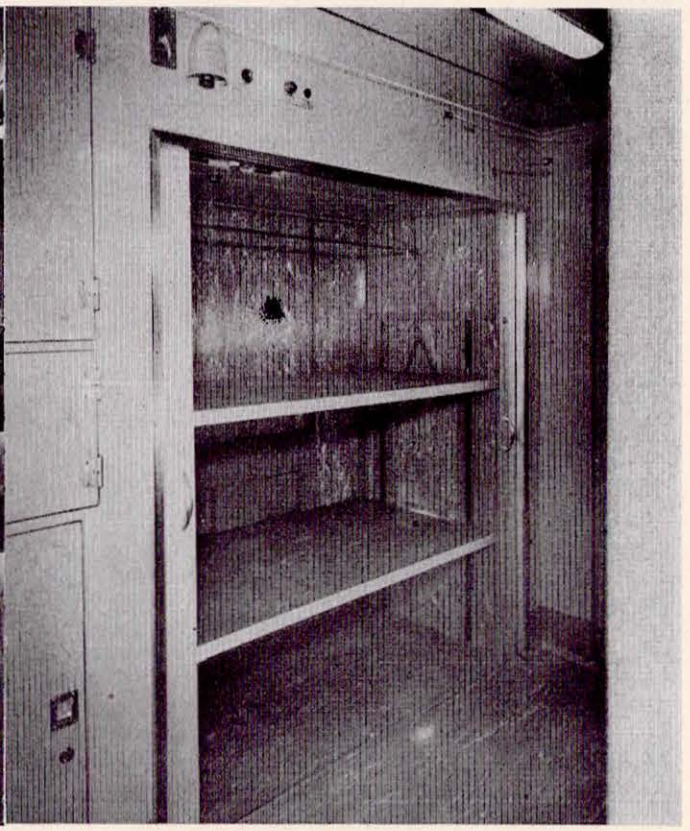
One of the S. P. three-car articulated units



A typical exterior—The tavern car

Coach

Luggage elevator shelves from the interior



The tavern car

chair car having news agent's space, seating 46; three full chair cars, each seating 48; one chair car having dining crew's dressing room and toilet, seating 38; one triple-unit consisting of a coffee shop, seating 66, and a diner, seating 66, separated by a kitchen car which serves both; three chair cars, each seating 48; a tavern car, seating 54; another chair car seating 48, and a parlor-observation car remodeled by the railroad from an existing car and seating 32.

The car-body framing utilizes Pullman-Standard girder-type construction and is made principally of aluminum supplied by the Aluminum Company of America. For example: side posts and carlines are Alcoa Alclad 61S-T62 alloy; end and door posts are 14S-T alloy; side sheets, pier panels, letter boards and roof sheets are 24S-T3 alloy; and side-plate sections, sash rests, purlines and other non-formed parts are 14S-T alloy.

Aluminum Saves Weight

The underframes, including center sills, are made of steel and welded throughout, except for application of the cast-steel center plates. The use of strong aluminum alloys in the superstructures only, above the underframes, is estimated to effect an average saving of 5,300 lb. per car or about 40 tons for a 15-car train, which reduces power requirements proportionately on fast schedules and heavy grades.

The car trucks are six-wheel type for the baggage-postal car and at the articulations of the triple-body coffee shop-kitchen-dining unit; all other trucks are four-wheel type. The journal sizes for all trucks are 6 in. by 11 in. and Timken roller bearings are supplied throughout. Each car has a Fenwal journal-box heat indicator and alarm.

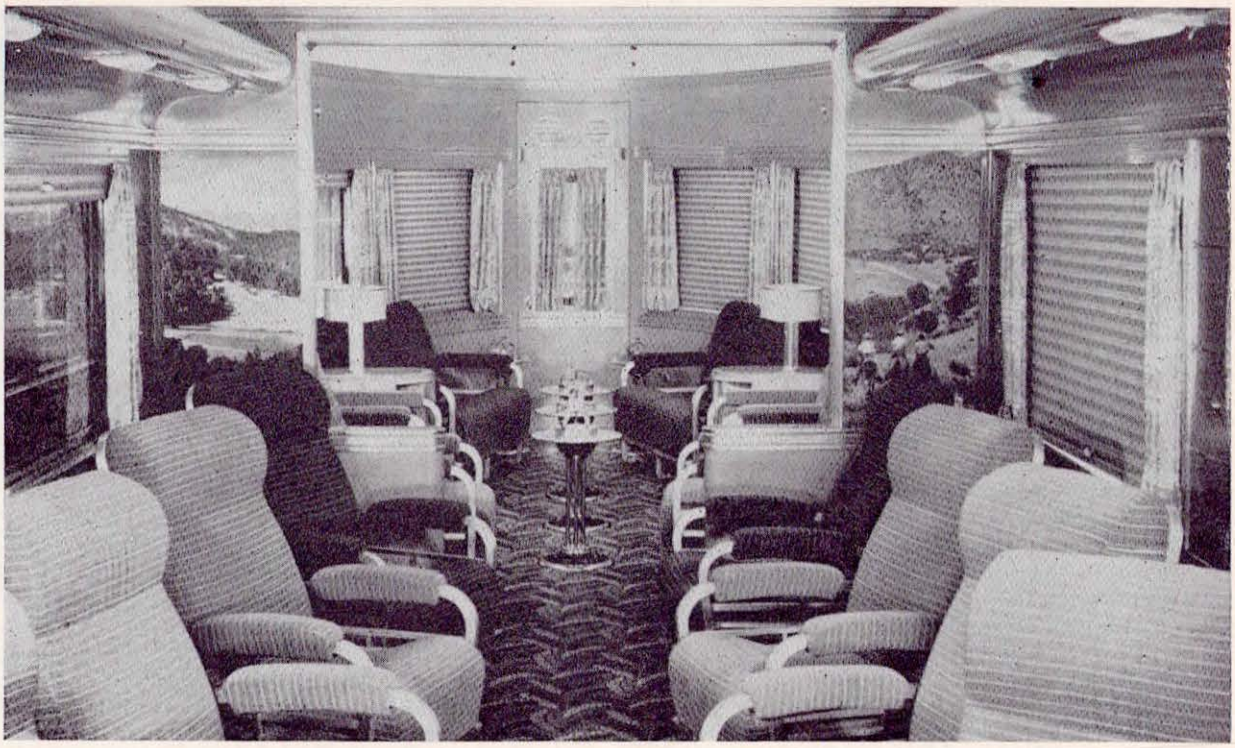
The air brakes are Westinghouse high-speed equipment including electro-pneumatic features for controlling the application and release of air from the brake cylinders. An anti-wheel-slide device is installed. Each car has two hand brakes.

Chair Cars Have Luggage Elevators

All window sash units are double-glazed, having safety glass for the inside pane and ¼-in. polished plate for the outer pane. Window sash openings throughout the train are 30 per cent higher than usual and over 60 in. wide so as to give passengers maximum vision not only out but upward in scenic mountainous country. Dodge venetian blinds are used in the tavern car and in the coffee shop and diner of the triple-articulated unit. Other car windows have shades. All cars are fully air-conditioned except the baggage-postal car.

All cars but the baggage-postal and the kitchen cars have radio speakers. Each of the chair cars has a hand luggage elevator adjacent to the entrance at the vestibule end. This feature, as on the previous "Daylights," enables the porter to take suitcases and other passenger luggage into the car without using the car end-door, as the baggage is placed on shelves in the luggage compartment from the outside and then is raised in position to a compartment inside the car. The shelves are raised and lowered by motor-driven screws controlled from pushbutton stations.

Practically all the kitchen and pantry equipment is made of Monel metal. The refrigerators are equipped with Carbofrezer dry-ice units. Service buffets in the



One of the "Shasta Daylight" observation lounges

lobbies of the coffee shop and dining cars have Lowerator automatic dispensers for cups and saucers. A steward's cabinet desk is located in the center of each of these two cars.

Color and Design Research

The "Shasta Daylight" streamliners are individually styled to an exceptional degree as a result of painstaking research into colors, local arts and crafts, folklore and landmarks of the territory served by the new trains, this work being done by the Pullman-Standard color and design department, in close cooperation with the Southern Pacific.

The exterior colors and striping are the same as on existing "Daylights," namely orange, red and black. Car interiors are bright and cheerful with special attention to appropriate interior fabrics, drapes, full-colored murals, art and etched mirrors. One series of chair cars is done in Odell blues and Oregon cedar tones; another in tones of Summit green, pine brown and cedar; a third in Canyon tan; and a forth in Shasta yellows, browns and cedar red. Spacious men's and women's lounges in all cars are done in the same general colors as used in the main coach compartment.

For maximum comfort and relaxation in the chair cars, de luxe coach seats feature extra soft foam rubber and are of the rotating-reclining type. The reclining mechanism is controlled by an Arm-Kap which is pushed to the rear ½ in. to lock the back in place. A new Hammok-Suspension provides a flexible panel to serve as a universal adapter and lend soft, firm support to the body. An individual free-turning foot rest, covered with rubber, is installed on the back of each seat and may be adjusted to any of four positions.

The attractive diner has a carpet of blue green in a forest leaf pattern, draperies in gold, seat coverings in two tones of autumn red, and table linen in gold with autumn leaves in reds and browns forming an unusual design pattern.

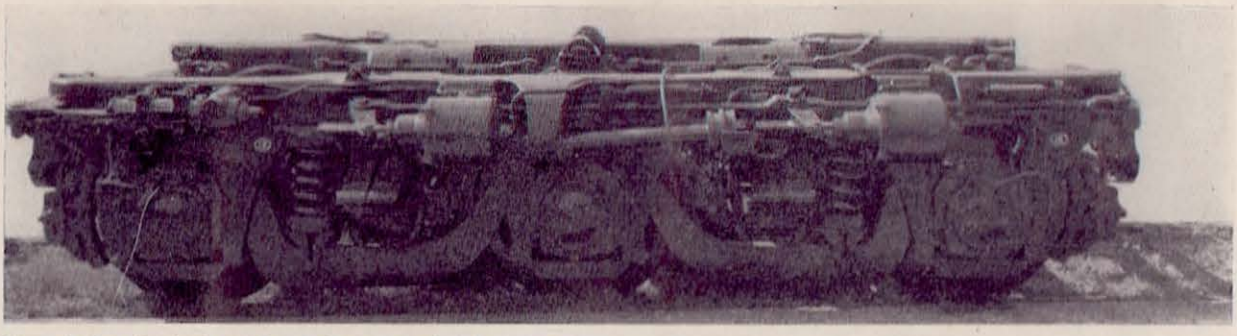
The upper walls and bulkheads of the diner are done in cloth backed California oak veneer as a natural background for the fall coloring. Four full natural-color murals, made from kodachromes and colored by hand, are used on the bulkheads, further complementing the color scheme.

The coffee shop of the three-car unit is in a still different color key, making it gay and informal in

"Shasta Daylight" Car Lengths, Weights and Seating Capacities

	Length over couplers, ft.	Estimated weight, lb.	Seating capacity
1 baggage-postal car	85	137,150*	....
1 chair car	85	125,090	46
1 chair car	85	123,800	48
1 chair car	85	123,800*	48
1 chair car	85	126,883	48
1 chair car	85	125,158	38
1 triple unit		314,234	
1 coffee shop car	....	....	66
1 kitchen car	....	....	....
1 dining car	....	....	66
1 chair car	85	126,883	48
1 chair car	85	123,800	48
1 chair car	85	126,883	48
1 tavern car	85	123,400*	54
1 chair car	85	126,800	48
1 parlor-observation		153,550	32

*Scale weights



One of the six-wheel trucks used at articulated connections

character. Browns, Cascade blues, and cedar red are the basic color tones. Carpets are in a fern pattern in three tones of Redwood brown, seat coverings in an attractive combination of blue and cedar, with draperies in cedar and blue. Exceptionally large murals are done in blue tones covering the entire ends of this room, creating an illusion of space and bringing an outdoor feeling of lakes and mountains into the room.

Tavern and Observation Cars

An outstanding decorative feature of the tavern car is the bar section, which occupies 18 ft. at the central portion of the car and is brilliantly illuminated from an overhead canopy. The bar front and canopy have wood panels showing animal life of the Northwest. At the back bar, between glistening display cases, is an illustrated transparency in full natural color, made from a photograph of Timberline Lodge. Two 27-seat sections, one on either side of the bar, are done in blue, cedar, Monterey-finished wood and pale yellow.

In the 80-ft. parlor-observation car, interior walls and ceiling are in four tones of blue. Foam rubber seats, upholstered in henna or blue, revolve and recline. Soft carpets in three tones of brown, decorated with a leaf pattern, are laid on a pad of sponge rubber. Six photo murals depict scenes of the "Shasta Route."

Partial List of Materials and Equipment on the New "Shasta Daylights"

Steel for underframes	Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Truck frames	General Steel Castings Corp., Granite City, Ill.
Truck springs	American Locomotive Co., Railway Steel Spring Division, New York
Wheels	Standard Steel Works Div., Baldwin Locomotive Works, Burnham, Pa.
Roller bearings and boxes	Timken Roller Bearing Co., Canton, Ohio
Truck clasp brakes; side bearings	American Steel Foundries, Chicago
Shock absorbers, truck	Houdaille-Hershey Corp., Houde Engineering Div., Buffalo, N. Y.
Bolster locking center pins	W. H. Miner, Inc., Chicago
Car couplers	National Malleable & Steel Castings Co., Cleveland, Ohio
Draft gear	Waugh Equipment Co., New York
Journal-box heat indicator and alarm	Fenwal Inc., Ashland, Mass.
Air brakes	Westinghouse Air Brake Co., Wilmerding, Pa.
Hand brakes (Dummy ends)	National Brake Co., New York
(Vestibule ends)	Pullman-Standard Car Manufacturing Co., Chicago
Aluminum sheets and shapes	Aluminum Co. of America, Pittsburgh, Pa.
Window sash	Adams & Westlake Co., Elkhart, Ind.
Glass	Libbey-Owens-Ford Glass Co., Toledo, Ohio Mississippi Glass Co., New York Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Insulation, car	Gustin-Bacon Mfg. Co., Kansas City, Mo.
Diaphragms, inner; vestibule curtains	Adams & Westlake Co., Elkhart, Ind.
Diaphragms, outer (rubber)	United States Rubber Co., New York
Vestibule step treads	American Abrasive Metals Co., Irvington, N. J.
Floor composition	Tuco Products Corp., New York
End-door operators	National Pneumatic Co., Rahway, N. J.
Interior door locks	Pullman-Standard Car Manufacturing Co., Chicago Yale & Towne Mfg. Co., Stamford, Conn.
Interior door checks	Yale & Towne Mfg. Co., Stamford, Conn.
Heating equipment	Vapor Heating Corp., Chicago
Electric power for all purposes	Waukesha Motor Co., Waukesha, Wis.
Overhead cooling and heating unit	Trane Co., La Crosse, Wis.
Air filters	Farr Co., Los Angeles, Calif.
Batteries	Thomas A. Edison, Inc., West Orange, N. J.
Battery and brake train-line receptacles and connectors; battery-charging receptacles	Pyle-National Co., Chicago
Exhaust blowers	Westinghouse Electric Corp., Sturtevant Division, Hyde Park, Boston, Mass.
Exhaust and circulating fans; axle device, regulators, etc. (baggage-postal cars only)	Safety Car Heating & Lighting Co., New York
Motor alternators	Eicor, Inc., Chicago Safety Car Heating & Lighting Co., New York
Lighting fixtures	Luminator, Inc., Chicago Safety Car Heating & Lighting Co., New York
Annunciators and chimes	Edwards & Co., Norwalk, Conn.
Radio and public address system	R.C.A. Victor Div., Radio Corp. of America, Camden, N. J.
Venetian blinds; luggage locker interior doors	H. B. Dodge & Co., Chicago
Window-shade fixtures and rollers; ash receptacles	Adams & Westlake Co., Elkhart, Ind.
Hand-luggage compartment elevators	Viking Engineering Co., Hammond, Ind.
Chair-car seats	Coach & Car Equipment Co., Chicago
Vanity and loose chairs	General Fireproofing Co., Youngstown, Ohio
Murals	Kaufmann & Fabry, Chicago
Dry-ice refrigerator units	Carbofrezer Co., San Francisco, Calif.
Bar	Mandel Bros., Chicago
Table tops	Formica Insulation Co., Cincinnati, Ohio
Range, steam table, steam cooker, broiler, urns, etc.	Stearnes Co., Chicago
Cup & saucer dispensers in dining cars	Lowerator Div., American Machine & Fdy. Co., New York
Water coolers	E. A. Lundy Co., New York Westinghouse Electric Corp., Pittsburgh, Pa.
Drinking-cup dispensers	Dixie Cup Co., Easton, Pa. U. S. Envelope Co., Paper Cup Div., Worcester, Mass.
Folding lavatories	Adams & Westlake Co., Elkhart, Ind.
Hoppers	Duner Co., Chicago Crane Co., Chicago
Paper towel cabinets	Scott Paper Co., Chester, Pa.
Water-tank and steam train-line insulation	Johns-Manville, New York
Fire extinguishers	Pyrene Mfg. Co., Newark, N. J.
Paint: Exterior, principally	E. I. du Pont de Nemours & Co., Finishes Div., Wilmington, Del.
Interior, principally	Sherwin-Williams Co., Cleveland, Ohio

The forward end of this car includes rest rooms, adjoined by a luggage compartment with electric elevators for quick loading from outside the car. Card tables for eight persons, writing desk and magazine table are set off from the main parlor section which has seats for 22 persons with individually controlled as well as general fluorescent lighting. The observation circle at the rear of the car has settees and lounge chairs for 10, and reading tables.

The entrance door of the parlor-observation car, as on all other passenger-carrying cars of the train, is electro-pneumatically operated. A warning light mounted on the rear of the car projects an oscillating beam of red light backward along the track (when actuated manually, or automatically due to application of brakes), as warning to a following train.

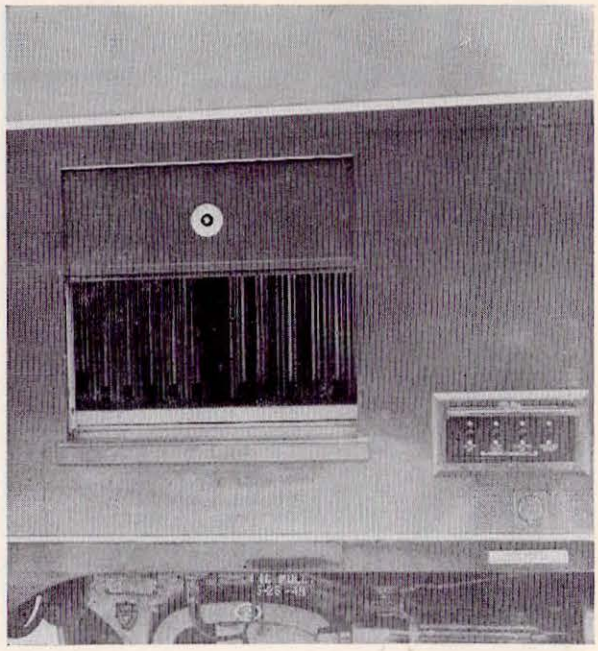
The "Shasta Daylight" cars are equipped with the fully automatic Vapor temperature control located in the end of each car. Automatic thermostat controls keep temperatures in the cars comfortable at all times, no matter what the temperature is outside. When heat is needed, steam is allowed into the radiators as required, and when cooling is needed the air-conditioning system automatically turns on, as the train moves, without manual adjustments.

Each chair car has five individually controlled heating zones, with separate thermostats which anticipate and modulate the heat in each zone. For example, the sunny side of the car needs less heat than the shady side, therefore the separate thermostats on each side automatically make adjustments to keep both comfortable.

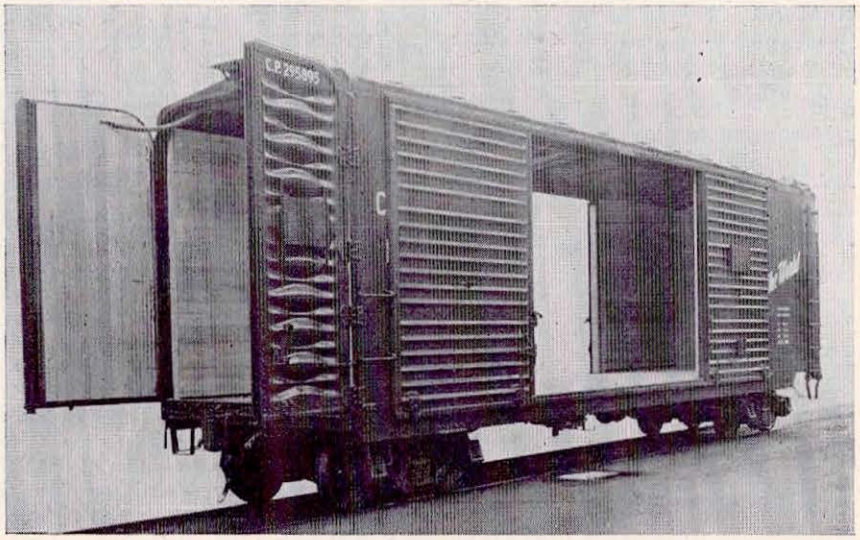
When the temperature in the car drops a fraction of one degree below the comfortable thermostat setting, the thermostat electrically opens the heat valve allowing just a little heat into the aluminum-finned radiators until the temperature is restored. When temperatures in the cars rise above the comfortable setting, thermostats turn on the air-conditioning equipment.

Each car is equipped for radio reception, conveniently placed speakers bringing entertainment to passengers without blare or distortion. Multi-channel radio tuners, both for A.M. and F.M. reception, are located in several of the cars to offer a wide selection of programs over the route of the train. To facilitate train announcements, the radio system is linked with a public-address system which may be controlled from a majority of the chair cars, or from the conductor's desk.

Forty-eight-seat chair cars carry five speakers in the ceiling, while the 46-and 38-passenger cars have four. Four speakers also are located in the tavern car, parlor-observation car, and in the diner and coffee shop sections of the three-car articulated dining unit.



Luggage elevator with exterior door raised



A 40-ft. 6-in. automobile car built for the Canadian Pacific by the National Steel Car Company

Transportation Costs Discussed —

Railway Age reprints two "letters to the editor" which appeared recently in the New York Times. In one a spokesman of the organized truckers (annoyed because that newspaper doubts that intercity truckers pay their proper share of highway costs) undertakes to show that there would be no "subsidized transportation" question if the railroads would stop their "complaints" that the truckers eat highest on the hog. In the other letter the editor of _Railway Age_ points out that the fundamental issue is not how the real costs of transportation are now assessed as between users and taxpayers but, instead, is whether transportation is to be _all_ self-supporting or all socialized.

—By the Director of Public Relations, American Trucking Associations

To the Editor of The New York Times:

Your editorial of June 5, "A Unified Transport Policy," contains one statement to which I should like to take exception. After indicating that "the railroads are heavily taxed" you say, "There is every reason to doubt that the trucking and long-line bus industries are paying their fair share of the cost of maintaining the right-of-way which they so freely enjoy."

Rather than there being "every reason to doubt" that trucks pay their way I think it more accurate to state that there is only one reason to believe that they do not pay their way—that reason being a steady and extensive barrage of railroad propaganda charging trucks with being subsidized.

Last year that "free ride" cost the nation's truck owners one billion and thirty-two million dollars in special motor vehicle taxes. In addition, like the railroads, they paid income taxes, property taxes and other non-vehicular levies in an unknown but obviously substantial amount.

The only complete and unbiased study ever given the question of public aids to transportation was that of the late Joseph B. Eastman, Federal Coordinator of Transportation. This study was made at the request of the railroads and financed by them. Over a period of seven years, with the aid of a large staff of experts, Mr. Eastman made an exhaustive analysis with respect to the allotment of highway

—By the Editor, Railway Age

To the Editor of The New York Times:

In the Times of July 1 you published a letter from Walter W. Belson, director of public relations of the American Trucking Associations, Inc., in which he seeks to refute an editorial in which you questioned whether long-haul trucks were paying adequately for the use of the highways.

Mr. Belson based his argument on the findings of the so-called "Eastman report" on public aids to transportation, which arrived at its conclusion that commercial highway users were paying adequately on the average (i. e., not necessarily in all states) by the wholly arbitrary and astonishing assumption that almost 60 per cent of highway costs should be shouldered by the general taxpayers rather than by the direct users of the highways. This burden was assigned to the general taxpayers on the assumption that highways confer "social benefits." That highways do confer such benefits no one questions—but so do railways. So, for that matter, does the service of retail stores, electric utilities and newspapers, but it has not yet occurred to anyone that 60 per cent of the cost of all these other economic services should be shifted from the patrons to the taxpayers.

The "Eastman report" is an obsolete document anyhow, based on conditions as they were fifteen years ago. There is another much more up-to-date report, equally nonpartisan, prepared from recent data by a firm of consulting engineers for the State of Illinois, which recommends that the fees charged the heaviest trucks be more than tripled in amount, to make them reasonably compensatory. Mr. Belson's characterization of the Eastman report as the "only complete and unbiased study" in this field thus falls somewhat short of complete forthrightness.

costs to the different motor vehicles which use the roads and of the tax and other payments made by these vehicles.

His conclusion, as reflected in the official report of the coordinator, definitely refutes the charge of government subsidy to the trucking industry. Likewise, the federal coordinator absolved the private passenger car and the motor bus of charges of "subsidy." What he did find, in this area, was that the railroads have been the beneficiaries of the "subsidy" which they so vociferously ascribe to trucks and buses. The "Eastman Report" is a public record, available to all interested persons and is required reading on this subject.

Motor Truck Service

It seems to me that stockholders in our railroads should interest themselves in the monomania of railroad management on this question of "subsidy." The motor trucks are serving a shipper demand which the railroads physically will never be able to equal with their own equipment, since they are tied to the rails. They cannot offer so-called "store-door" service except with the assistance of the very trucks which they apparently regard so bitterly.

Railway Age recently presented a table, derived from testimony before an I.C.C. hearing by L. F. Orr of St. Louis, contrasting the rail revenue per hundredweight with the truck hauling cost per hundredweight of ten basic commodities. These commodities were: grain products, products of agriculture NOS, anthracite to washers, bituminous coal, coke, iron ore, other ores and concentrates, sand, gravel and stone, logs, butts, bolts, pulpwood, etc., and lumber, shingles, lath, etc.

Based on Mr. Orr's tables, the average rail revenue from these "rail bound" products was $0.2044 per hundredweight, averaged. The truck cost (not charge) averaged $0.3568. Rail revenue was therefore 57 per cent of truck cost, or put another way, rail rates could be increased on this traffic on average as much as 66 per cent over present levels and still be well under truck cost of hauling.

These items happen to be among those which constitute the bulk of railroad ton miles. Of course, *Railway Age* and other railroad spokesmen contend that our economy could not stand increased rates on these products. That is a matter of speculation.

Why aren't railroads entitled to cost of service and a fair return for their investment dollar?

Railroad Ton-Mileage

There is one curious facet of the railroad problem which has escaped the notice of most, if not all, of the commentators on transportation. Analysis of the railroad's own figures on distribution of commercial intercity freight discloses that the ton-mileage of the railroads in 1948 was greater than the ton-mileage of all forms of transportation in 1939 and in 1940. Moreover, the 647 billion ton-miles carried by the rails in 1948 was 91 per cent greater than they hauled in 1939 and 44 per cent more than they hauled back in 1926 when the trucking and pipeline industries were in their infancy.

Apparently, the railroad complaint is not lack of tonnage but rather their inability to preserve in perpetuity their relative share of the business against whatever new and improved forms of transport may arise.

WALTER W. BELSON
Director Public Relations,
American Trucking Associations, Inc.

The Problem Illustrated

It is not necessary to confuse the issue by injecting the ethical and metaphysical question of "fairness" into consideration of the economic problem which arises from the competition between transportation plant provided by the public purse (e. g., highways and waterways) and that supplied entirely from private investment sources (i. e., the railroads). The economic problem is not unduly complex and may be clearly exemplified by a concrete illustration: Citrus fruits move from Florida to New York either in a refrigerator car on rails or in a truck on the public highway. In the first case the shipper has to pay charges which include not only (1) the cost of moving the vehicle, but also (2) a proportionate share of the entire cost of the roadway over which the vehicle moves, and (3) ad valorem taxes on the cost of the roadway. In the second case the shipper has to pay cost (1), only a part of cost (2) and he does not pay cost (3) at all. This statement is irrefutable; and it inevitably produces rates for truck service which fail to reflect the full economic costs of the service, which railroad rates cannot fail to embrace, because the privately owned railroads have no means of diverting a portion of their costs away from their patrons and onto the tax rolls.

An Identical Service

Since, for long-haul commercial traffic, the publicly owned highway and the privately owned railway perform an identical service, there can be no reason whatever why the costs of transportation by one method should be saddled wholly on the users while taxpayers are required to share a large part of the cost when the other method is used.

The problem confronting the nation because of its persistence in putting deceptive price tags on its socialized transportation facilities (for that, in substance, is what highways for long-haul commerce are) is the practical one of how the railroads are going to be continued as a privately financed industry, when they lose a large and growing traffic for reasons which are political rather than economic. It seems scarcely probable that the nation is going to abandon, in the long-run, for the long-haul transportation of freight a transportation tool by which five men can move 5,000 tons in favor of an alternative device which requires 100 times as many men to produce the same service, with the service requiring the larger number of men also calling for a larger outlay of capital. This is, nevertheless, the absurd trend now being fostered by our misleading price-tagging of the cost of publicly owned transport plant in its competition with that in private ownership.

Correction Possible

This anomaly is bound to be corrected. It can be corrected in terms of continued private ownership in the transportation industry by pricing the long-haul commercial use of the highways in accordance with business principles. The alternative is to allow the railroads to go broke and drift into public ownership, where they too will be able to provide transportation service in large degree at the taxpayers' expense.

The question of whether parallel methods of assessing costs should be adopted as between the use of highways and that of railways is really not an issue, because economic forces are working inexorably to that end. The real question lies in whether similar systems of cost allocation for the two forms of transportation will be achieved under conditions of private enterprise or under those of socialization—whether the entire transportation industry is to be restored to a wholly self-supporting basis or whether all of it is to become a chronic burden on the public treasury.

JAMES G. LYNE,
Editor, *Railway Age*

New "lookout lounge" observation cars have been added to the New York Central's "Southwestern Limiteds," completing deliveries of postwar passenger equipment for the daily St. Louis, Mo.-New York trains. The new cars feature an elevated observation section with extra large windows. In addition to the lounge and observation sections, which seat 25 persons, the cars contain five double bedrooms, four of which can be converted to two large drawing rooms with seating space for seven persons and berths for four. All cars on the trains are of all-stainless steel construction and were built by the Budd Company

A. Hastings, of Great Neck, N. Y., former New York state senator.

Dr. Parmelee—who, like other railroad witnesses, supported his testimony with detailed exhibits—emphasized the fact that "sharp and continuing increases in railroad operating costs have seriously depleted the Eastern railroads' net working capital." In the 40-month period from December 31, 1945, to April 30, 1949, he said, there was a reduction of 82 per cent in working capital; the amount on hand on April 30 was barely enough to cover payrolls for a two-week period. "If there is no change in rates and fares or prices of materials," he added, "the annual rate of return earned on net investment by the Eastern railroads will be only about 2.02 per cent after the 40-hr. week goes into effect for non-operating employees on September 1."

He pointed out that, while Eastern district operating revenues in 1948 were 38 per cent greater than in 1929, the pre-war peak, and 107.1 per cent over 1940, operating expenses in 1948 were 51.4 per cent larger than in 1929 and 130.1 per cent above 1940. Since 1940, he said, the increase in Eastern railroad passenger revenues per passenger-mile, excluding commutation traffic, has been relatively less than half as great as the increase in wholesale prices, less than two-thirds as great as the increase in cost of living, and less than one-third as large as the increase in per capita personal income.

Mr. Carpi stated that his company had lost nearly $45 million on passenger service in 1948, and would realize only $8,900,000 from the new fares—"far from enough to offset the losses growing out of sharply increased wages and material costs." Like other witnesses who followed him, he called attention to the fact that the railroads have for a long time been trying to secure increases in rates on mail and other passenger-train head-end traffic; to increases in wages and material prices, and to the "lag and unfavorable disparity between the carriers' increased cost burden and increased rate and fare levels."

High Volume at Low Fares No Answer

On direct examination by Mr. Kaier, Mr. Carpi said he had tested "under the most favorable conditions imaginable" the theory that passenger service might be put on a profitable basis by lower fares and increased volume. He recalled that in 1943 the Pennsylvania's passenger service produced a net railway operating income of $48,179,849, when new automobiles were unavailable, gasoline was rationed, and tremendous troop and furlough movements and other unusual travel incident to war-crowded trains.

"No one would suggest that a volume anywhere near as great as this could be achieved," he said, "under the normal conditions which now prevail. But restating the cost of providing that service on the basis of today's wage rates, tax rates and material prices, we find that the $48 million net railway operating income is turned into a deficit of $13,524,993. This is conclusive demonstration of the fact that low rates and great volume cannot overcome the cost increases that have been incurred in postwar years."

Following Mr. Carpi, Mr. Getty told what his company was doing to provide new and improved postwar passenger equipment, and faster scheduling of trains, "as a result of which the public today receives for its transportation dollar far greater value than ever before in travel comfort and convenience." He also declared that the proposed increase in basic fares will raise the average fare paid by passengers on the Pennsylvania, exclusive of commuters, from 3.14 cents per mile to 3.53 cents per mile. "That," he said, "will still be slightly less than the average fare of 3.55 cents per mile paid in the 1920's, when train comforts and services were a far cry from those enjoyed now, and when railroad operating costs were substantially less than at present." As did other witnesses, he called attention to railroad efforts to discontinue unprofitable trains, and to the difficulties frequently encountered in doing so.

Mr. Haggerty's testimony was generally similar to Mr. Getty's, except that it related to the New York Central, and, in some particulars, to other Eastern roads; while Mr. Armold presented a series of exhibits to show how the proposed increased fares would be applied for various distances and between different destinations.

Mr. Alger's statement dealt largely with passenger traffic on the New York Central, and with the efforts that company is making to cut passenger operating costs and improve service. He granted that increasing the basic fares "may possibly result in a slight diversion of traffic to other forms of transportation, but the diversion, if any, will not be to any appreciable extent. . . . There is a solid core of regular and dependable passenger traffic for the railroads . . ." which, he said, "I believe we will be able to retain."

On the day preceding the general hearing, officers of the Long Island testified in support of that company's separate application for a 16 2/3 per cent increase in fares on that company's proportion of the interstate passenger traffic in which it participates.

Diesel Fireman Board Asks More Time to Submit Report

President Truman has been asked to extend to September 19 the time by which he will receive the report of the three-man "fact-finding" board holding hearings in New York on the demand of the Brotherhood of Locomotive Firemen & Enginemen for an extra fireman on Diesel-electric locomotives. The original date for submitting the report was August 15. Grady Lewis, a member of the Presidential board, said the date the board is "shooting for" by which presentation of evidence would be complete is August 19. If this aim is achieved, Mr.

costs to the different motor vehicles which use the roads and of the tax and other payments made by these vehicles.

His conclusion, as reflected in the official report of the coordinator, definitely refutes the charge of government subsidy to the trucking industry. Likewise, the federal coordinator absolved the private passenger car and the motor bus of charges of "subsidy." What he did find, in this area, was that the railroads have been the beneficiaries of the "subsidy" which they so vociferously ascribe to trucks and buses. The "Eastman Report" is a public record, available to all interested persons and is required reading on this subject.

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The problem confronting the nation because of its persistence in putting deceptive price tags on its socialized transportation facilities (for that, in substance, is what highways for long-haul commerce are) is the practical one of how the railroads are going to be continued as a privately financed industry, when they lose a large and growing traffic for reasons which are political rather than economic. It seems scarcely probable that the nation is going to abandon, in the long-run, for the long-haul transportation of freight a transportation tool by which five men can move 5,000 tons in favor of an alternative device which requires 100 times as many men to produce the same service, with the service requiring the larger number of men also calling for a larger outlay of capital. This is, nevertheless, the absurd trend now being fostered by our misleading price-tagging of the cost of publicly owned transport plant in its competition with that in private ownership.

Correction Possible

This anomaly is bound to be corrected. It can be corrected in terms of continued private ownership in the transportation industry by pricing the long-haul commercial use of the highways in accordance with business principles. The alternative is to allow the railroads to go broke and drift into public ownership, where they too will be able to provide transportation service in large degree at the taxpayers' expense.

The question of whether parallel methods of assessing costs should be adopted as between the use of highways and that of railways is really not an issue, because economic forces are working inexorably to that end. The real question lies in whether similar systems of cost allocation for the two forms of transportation will be achieved under conditions of private enterprise or under those of socialization—whether the entire transportation industry is to be restored to a wholly self-supporting basis or whether all of it is to become a chronic burden on the public treasury.

JAMES G. LYNE,
Editor, *Railway Age*

GENERAL NEWS

House Group Modifies Radio-Rules Bill

Adopts I.C.C. proposals; rail presidents answer Patterson

Amendments designed to eliminate the proposed grant to the Interstate Commerce Commission of general regulatory authority over all railroad operating rules have been incorporated by a House interstate and foreign commerce subcommittee in a modified version of pending legislation which the subcommittee has decided to report favorably to its parent committee. The bill involved is H.R. 378, introduced by the parent committee's chairman, Representative Crosser, Democrat of Ohio; and the amendments adopted by the subcommittee, which is headed by Representative Beckworth, Democrat of Texas, are those suggested by the I.C.C. and called "clarifying" by Commissioner Splawn, chairman of the commission's legislative committee.

The amendments were submitted to the House subcommittee after Mr. Splawn had first proposed them at a July 6 hearing before a Senate interstate and foreign commerce subcommittee which is considering an identical bill, S.238 (see *Railway Age* of July 9, page 135). As thus modified, the proposed legislation, which is designed to broaden the Interstate Commerce Act's section 25 where provisions of the so-called Signal Inspection Act of 1937 are now included, would still give the commission authority to require the installation of radio and other train-communication systems; but its authority to prescribe train-operating rules would be confined to rules "in connection with" such installations and installations of signaling devices over which the commission already has authority under the present law. The House subcommittee also made further amendments, including one providing that interested parties shall be afforded "opportunity for hearing" before the commission issues an order under the section, and others designed to safeguard the present jurisdiction of the Federal Communications Commision over railroad radio installations.

That the I. C. C.'s "clarifying" amendments were considered emasculating by labor organizations supporting H.R.378 as originally introduced was indicated by the report of the presentations made by Commissioners Splawn and Johnson before the Senate subcommittee which appeared in the July 9 issue of "Labor," organ of 15 railroad unions. Commissioner Johnson endorsed the "clarifying" amendments after they were proposed by Mr. Splawn, but Commissioner Patterson who also appeared at the hearing made no reference to them.

"Safety Measure Stabbed," Says "Labor"

"Safety Measure of I.C.C. Stabbed by Two Members," said "Labor's" headline, its subhead adding: "Shocking performance staged by Splawn and Johnson before Senate group." The latter statement was repeated in the account of the hearing which went on to point out that the original version of the legislation had been recommended by the commission in its annual reports of recent years. It was then noted that Commissioner Patterson "fully endorsed" these recommendations in his presentation as he had in an earlier appearance before the House subcommittee. "Suddenly," as "Labor" put it, "Senator Reed of Kansas, who is regarded as friendly to the railroad interests, induced" Commissioner Splawn to take the stand. The article proceeded to quote "spokesmen for the rail unions who have devoted years of study to the matter" as having said that the "clarifying" amendments would "cut the guts out of the proposed legislation."

"The carriers," the article also charged, "have put the heat on members of the I.C.C. during the last week, urging them to abandon recommendations which they supported for so many years. Only Splawn and Johnson have succumbed. Patterson is standing by his guns. In their effort to butcher the legislation the [railroad] lobby has brought in a number of railroad presidents and they began 'operating' on members of the I.C.C. and such senators as they could approach."

As reported in last week's *Railway Age*, Commissioner Splawn told the Senate subcommittee that he was speaking for the commission, as chairman of its legislative committee, in offering the amendments. The commission, he said, had agreed upon them at a July 5 conference, held at his suggestion for fur-

General of the Armies Dwight D. Eisenhower was one of the participants in ceremonies which started the Pennsylvania's newly re-equipped streamlined train, "The General," on its first 16-hr. run from New York to Chicago; his "opposite number" in a similar send-off for the eastbound train at Chicago was Lieutenant General Stephen J. Chamberlain, commanding the Fifth Service Command. "The General's" new schedule, 25 min. faster than its former schedule, matches the running time of the "Broadway Limited," which it will precede by one hour in each direction. New all-Pullman equipment, costing approximately $3 1/3 million, includes a wide variety of Pullman accommodations, from section space through de luxe master bedrooms with private shower baths; mid-train lounge; rear-end observation lounge with solarium, and 68-seat, twin-unit dining car

ther consideration of its position on the proposed legislation.

Presidents Reply to Patterson

Meanwhile, Presidents F. G. Gurley of the Atchison, Topeka & Santa Fe, J. B. Hill of the Louisville & Nashville, and William White of the Delaware, Lackawanna & Western, who appeared before the Senate and House subcommittees in opposition to the proposed legislation, have sent to Chairman Beckworth a letter in reply to testimony made before the House subcommittee by Commissioner Patterson. The letter was written because the three railroad presidents found "particularly disturbing" statements by the commissioner "to the general effect that railroad management does not make a serious effort to enforce obedience by its employees to its operating rules and even encourages violations of such rules." (See *Railway Age* of July 2, page 46). They asked Chairman Beckworth to make the letter a part of the record of his subcommittee's hearings; and J. Carter Fort, vice-president and general counsel of the Association of American Railroads, submitted a copy for the Senate subcommittee's record to Senator Myers, Democrat of Pennsylvania, chairman of that group.

With respect to Commissioner Patterson's charge, as summarized above, Messrs. Gurley, Hill and White said generally that they had "no hesitancy in saying that the railroads do not disregard safety by encouraging or acquiescing in violations of operating rules by employees." Such a practice would be "unthinkable," they added.

"There is," the letter continued, "no feature of railroad operation which receives more serious, painstaking and conscientious consideration than the formulation and enforcement of operating rules. These rules have been developed and constantly improved since the early days of railroading by the best qualified men in the industry. . . .Safety is the first consideration. Railroad management takes every means available to it to enforce observance of the operating rules. Employees are schooled in the rules and are examined upon them. Supervisory officers are constantly on the alert to discover possible infractions and such infractions as are discovered bring prompt disciplinary measures including dismissal from service in appropriate cases."

Adjustment Board Interferes with Discipline

The railroad presidents conceded that it was not possible to achieve "a perfect record of compliance with the rules at all times by all employees." In their efforts to obtain the "highest possible degree of compliance," they said, the railroads are confronted with a "difficulty" in the National Railroad Adjustment Board set-up. That board, the letter went on to explain, "undertakes to review many cases involving rules infractions, and substitute its judgment for that of management in matters of discipline." Here also, Messrs. Gurley, Hill and White emphasized that the proposed legislation "provides no penalty against an employee who fails to observe operating rules and for that reason could have no effect in bringing about a stricter compliance with the rules."

Turning next to another of Commissioner Patterson's statements "to the general effect that the railroads have usually waited to put safety measures in effect until there was legislation requiring them to do so," the railroad presidents cited what they called the "extraordinary and gratifying improvements in the safety of railroad operation," which has been continuing for a "great many" years. "This," they added, "has been due almost wholly to the voluntary action of the railroads and not to legislative compulsion. For the most part, the improvement in railroad safety has been the result of voluntary expenditures by the railroads for the general betterment and improvement of their facilities and equipment. . . ."

Even if Commissioner Patterson's charge is taken only as relating to the installation of safety devices, it is "much too broad," Messrs. Gurley, Hill and White insisted. Taking automatic block signals as their first example, they pointed out that 93,757 miles of track were equipped with such signals as of January 1, 1937—"before any legal requirement was involved." The Signal Inspection Act giving the commission authority to require such installations was not enacted until August, 1937. The letter put at 105,334 the mileage of track equipped with automatic block signals as of January 1, 1948, and said that "only a small part" of the increase since 1937 was the result of commission orders "or any other legal requirement."

Other like examples included the letter's reference to the extension of centralized traffic control systems until they covered 8,847 miles of track as of Janu-

(Continued on page 76)

I. C. C. Opens Eastern Fare Increase Hearings

Increased costs require 12½% boost, rail witnesses testify

Nine favoring railroad witnesses, and four opponents, were scheduled to appear before Interstate Commerce Commissioner John L. Rogers at Brooklyn, N. Y., on July 13 and 14 in hearings on I. C. C. Docket No. 30256—the petition of "substantially all" of the Class I railroads in the Eastern district and Pocahontas region for a basic passenger-fare increase of 12½ per cent.

The railroads' proposal calls for increasing both one-way and round-trip fares so that, as increased, one-way fares would approximate 3.375 cents per mile in coaches and 4.5 cents per mile in parlor and sleeping cars; for increasing interline fares between stations on the lines of petitioning railroads and stations on connecting lines to the extent necessary to reflect the requested increases; for increasing excess baggage charges, and for making other minor revisions in present fare scales. The proposal does not apply to commutation fares, which were not an issue in the hearings.

Railroad witnesses repeatedly emphasized the cost increases which the industry has been required to assume in recent years, the losses incurred in passenger service, and the fact that the proposed increase is essential, not to make passenger traffic wholly self-supporting, but simply to enable it to bear a fairer share than it now does of over-all railroad costs. Sitting with Commissioner Rogers in consideration of these and other arguments were Edgar H. Hunter, chairman of the Public Service Commission of New Hampshire, and Harold L. Mason, member of the Public Utilities Commission of Ohio.

Parmelee Opens Railroad Case

Lead-off witness for the railroads was Dr. Julius H. Parmelee, vice-president of the Association of American Railroads, and director of its Bureau of Railway Economics. He was followed, in order, at the first session of the hearing, by Fred Carpi, vice-president—traffic, of the Pennsylvania; Claude W. Getty, assistant passenger traffic manager of the same company; J. D. Haggerty, assistant comptroller, New York Central; Harry G. Gillis, general passenger agent, N. Y. C., and Vanderbilt Armold, chairman of the Trunk Line—Central Passenger Committee of the Traffic Executive Association—Eastern Railroads. Other witnesses slated for later appearances included Martin J. Alger, vice-president—traffic, of the N. Y. C., E. D. Osterhout, passenger traffic manager, Reading, and H. F. McCarthy, vice-president—traffic, of the New York, New Haven & Hartford.

Direct examination of railroad witnesses at the opening sessions was handled by E. A. Kaier, general attorney, P. R. R., and Kenneth F. Stone, general counsel, N. Y. C. The only cross-examination was by F. B. McElroy, transportation rate expert of the Illinois Commerce Commission, and Emanuel Schwartz, town attorney of Pelham, N. Y.

Opposition witnesses who filed their intention to appear included Mr. McElroy; Marshall J. Mantler, executive director, and Andrew P. Federline, attorney, for the Bureau of Salesmen's National Association; and Dr. William Leonard and George Harbaugh, representing the Jersey Shore Protective Committee and the Inter-Municipal Group for Better Rail Service, an association of 48 New Jersey communities which has been actively opposing increases in commutation fares on lines serving that state. A separate statement opposing the increase, and urging the commission to investigate the basic level of passenger fares and to advocate repeal of the 15 per cent wartime excise tax, was distributed by John

New "lookout lounge" observation cars have been added to the New York Central's "Southwestern Limiteds," completing deliveries of postwar passenger equipment for the daily St. Louis, Mo.-New York trains. The new cars feature an elevated observation section with extra large windows. In addition to the lounge and observation sections, which seat 25 persons, the cars contain five double bedrooms, four of which can be converted to two large drawing rooms with seating space for seven persons and berths for four. All cars on the trains are of all-stainless steel construction and were built by the Budd Company

A. Hastings, of Great Neck, N. Y., former New York state senator.

Dr. Parmelee—who, like other railroad witnesses, supported his testimony with detailed exhibits—emphasized the fact that "sharp and continuing increases in railroad operating costs have seriously depleted the Eastern railroads' net working capital." In the 40-month period from December 31, 1945, to April 30, 1949, he said, there was a reduction of 82 per cent in working capital; the amount on hand on April 30 was barely enough to cover payrolls for a two-week period. "If there is no change in rates and fares or prices of materials," he added, "the annual rate of return earned on net investment by the Eastern railroads will be only about 2.02 per cent after the 40-hr. week goes into effect for non-operating employees on September 1."

He pointed out that, while Eastern district operating revenues in 1948 were 38 per cent greater than in 1929, the pre-war peak, and 107.1 per cent over 1940, operating expenses in 1948 were 51.4 per cent larger than in 1929 and 130.1 per cent above 1940. Since 1940, he said, the increase in Eastern railroad passenger revenues per passenger-mile, excluding commutation traffic, has been relatively less than half as great as the increase in wholesale prices, less than two-thirds as great as the increase in cost of living, and less than one-third as large as the increase in per capita personal income.

Mr. Carpi stated that his company had lost nearly $45 million on passenger service in 1948, and would realize only $8,900,000 from the new fares—"far from enough to offset the losses growing out of sharply increased wages and material costs." Like other witnesses who followed him, he called attention to the fact that the railroads have for a long time been trying to secure increases in rates on mail and other passenger-train head-end traffic; to increases in wages and material prices, and to the "lag and unfavorable disparity between the carriers' increased cost burden and increased rate and fare levels."

High Volume at Low Fares No Answer

On direct examination by Mr. Kaier, Mr. Carpi said he had tested "under the most favorable conditions imaginable" the theory that passenger service might be put on a profitable basis by lower fares and increased volume. He recalled that in 1943 the Pennsylvania's passenger service produced a net railway operating income of $48,179,849, when new automobiles were unavailable, gasoline was rationed, and tremendous troop and furlough movements and other unusual travel incident to war-crowded trains.

"No one would suggest that a volume anywhere near as great as this could be achieved," he said, "under the normal conditions which now prevail. But restating the cost of providing that service on the basis of today's wage rates, tax rates and material prices, we find that the $48 million net railway operating income is turned into a deficit of $13,524,993. This is conclusive demonstration of the fact that low rates and great volume cannot overcome the cost increases that have been incurred in postwar years."

Following Mr. Carpi, Mr. Getty told what his company was doing to provide new and improved postwar passenger equipment, and faster scheduling of trains, "as a result of which the public today receives for its transportation dollar far greater value than ever before in travel comfort and convenience." He also declared that the proposed increase in basic fares will raise the average fare paid by passengers on the Pennsylvania, exclusive of commuters, from 3.14 cents per mile to 3.53 cents per mile. "That," he said, "will still be slightly less than the average fare of 3.55 cents per mile paid in the 1920's, when train comforts and services were a far cry from those enjoyed now, and when railroad operating costs were substantially less than at present." As did other witnesses, he called attention to railroad efforts to discontinue unprofitable trains, and to the difficulties frequently encountered in doing so.

Mr. Haggerty's testimony was generally similar to Mr. Getty's, except that it related to the New York Central, and, in some particulars, to other Eastern roads; while Mr. Armold presented a series of exhibits to show how the proposed increased fares would be applied for various distances and between different destinations.

Mr. Alger's statement dealt largely with passenger traffic on the New York Central, and with the efforts that company is making to cut passenger operating costs and improve service. He granted that increasing the basic fares "may possibly result in a slight diversion of traffic to other forms of transportation, but the diversion, if any, will not be to any appreciable extent. . . . There is a solid core of regular and dependable passenger traffic for the railroads . . ." which, he said, "I believe we will be able to retain."

On the day preceding the general hearing, officers of the Long Island testified in support of that company's separate application for a 16 2/3 per cent increase in fares on that company's proportion of the interstate passenger traffic in which it participates.

Diesel Fireman Board Asks More Time to Submit Report

President Truman has been asked to extend to September 19 the time by which he will receive the report of the three-man "fact-finding" board holding hearings in New York on the demand of the Brotherhood of Locomotive Firemen & Enginemen for an extra fireman on Diesel-electric locomotives. The original date for submitting the report was August 15. Grady Lewis, a member of the Presidential board, said the date the board is "shooting for" by which presentation of evidence would be complete is August 19. If this aim is achieved, Mr.

Lewis said, final briefs will be presented by September 1.

The board on July 7 denied a formal request by C. L. Mulholland, attorney for the Railway Employees' Department of the American Federation of Labor, for permission to intervene in the proceedings and present testimony relative to his organization's interest in the case. Mr. Mulholland explained his request by saying: "I think in the engineers' case it was clearly brought out that the Railway Employees' Department represents, for collective bargaining purposes, the men now known as Diesel maintainers. We feel, therefore, that we have a very definite interest in the outcome of this case." Harold Heiss, counsel for the B. of L. F. & E., objected to Mr. Mulholland's request to intervene. Howard Neitzert, counsel in the case for the railroads, said he had no objection.

Although the board denied the request, its chairman, George W. Taylor, told Mr. Mulholland it "reserves the right to itself to call upon you and your organization for information which . . . may become necessary for a complete investigation of the issues."

Union's Second Witness

Horace A. Bacus, of Cleveland, Ohio, followed David B. Robertson, president of the B. of L.F.&E., as the union's second witness. Mr. Bacus, who described himself as a "transportation economist," was a statistical analyst with the National Recovery Administration in 1932. Just before the recent war he was research director for the Brotherhood of Railway & Steamship Clerks. After four years' service with the armed forces during the war he accepted, in October, 1947, an assignment with the B. of L.F.&E. to prepare material for the present case.

His lengthy testimony consisted mainly of a summation of the history of straight electric locomotive operations on United States railroads from 1895 to the present. Such a presentation was necessary, he said, because "the only reason in the world that these men on these electric locomotives have this [wage] differential today is that complete facts have never been before any board . . . and I certainly think it is time that some public board gets this complete picture."

Jesse Clark, president of the Brotherhood of Railroad Signalmen of America, and third witness for the B. of L.F.&E., said he was appearing "primarily to talk about the type of work performed and the facilities installed and maintained by the employees represented by my organization on the nation's carriers." Mr. Clark cited a number of instances of alleged failure of signal and safety equipment which had almost, or actually, led to accidents on various railroads throughout the country. He added that an additional observer on locomotives would tend to reduce the possibility of accident in cases of equipment failure. For instance, the witness continued, "an extra pair of eyes" would help in situations where faulty mechanisms gave false "proceed" signals to enginemen.

At this point Mr. Lewis interrupted the witness to say that an incorrect signal is still incorrect whether viewed by one set of eyes or 20 sets and that he could not see how the determination of a correct reaction to a false "proceed" signal depended upon the number of observers.

Additional General News appears on pages 76 through 81.

SUPPLY TRADE

Frank C. Hasse, whose retirement as vice-president, mechanical department, of the **Oxweld Railroad Service Company,** a

Frank C. Hasse

unit of **Union Carbide & Carbon Corp.,** at Chicago, was reported in *Railway Age* of July 2, entered railroad service in

Lem Adams

1904 with the Atchison, Topeka & Santa Fe. He also served successively as fireman with the Chicago, Burlington & Quincy, and as roundhouse foreman and general boiler foreman with the Illinois Central prior to joining the Oxweld Railroad Service Company in 1913 as an instructor. In 1916 he was assigned to the Chicago main office, leaving that post early in World War I to enter the United States Army as a captain. He later held the positions of superintendent of construction at Camp Normyle, San Antonio, Tex., and commanding officer of that camp. Shortly after his return to Ox-

Clarence R. Strutz

weld in 1919, Mr. Hasse was appointed superintendent of construction and maintenance, and in 1927 became general manager, subsequently advancing to vice-president.

Also reported in *Railway Age* of July 2 were changes resulting from Mr. Hasse's retirement, involving **Lem Adams,** who has assumed general supervision of the mechanical and construction departments in addition to his present duties; **Clarence R. Strutz,** who has been pro-

R. W. Torbert

moted to manager of the mechanical department; and **R. W. Torbert,** who has been appointed manager, maintenance of way and construction departments.

Mr. Adams graduated from Texas Agriculture and Mechanical College with a degree in civil engineering in 1908, and started his railroad career in June, 1909,

in the engineering department of the Union Pacific. After holding various positions in the maintenance-of-way department, he was appointed roadway assistant, staff of president, system, with headquarters at Omaha, Neb., in 1920. In 1931 he became engineer, maintenance of way, being advanced to chief engineer in January, 1933. The following August he joined the Oxweld Railroad Service Company as chief engineer, and became vice-president in February, 1939.

Mr. Strutz received a degree in mechanical engineering from Valparaiso University in 1933, and first became associated with Union Carbide & Carbon in 1934, when he was employed at the corporation's exhibit at the Chicago World's Fair. He subsequently entered the mechanical department of Oxweld and continued to serve with the company until 1942, at which time he volunteered for service in the United States Navy, being assigned to various shipyards, including San Diego, Cal., San Francisco and Pearl Harbor. At the time of his discharge in 1945, Mr. Strutz held the rank of lieutenant, and since then has been closely associated with Mr. Hasse.

Mr. Torbert, who is a graduate in civil engineering of the University of Delaware, entered railroad service in the engineering department of the Reading at Harrisburg, Pa. In 1926 he was appointed assistant supervisor, maintenance of way, and in 1934 was advanced to supervisor, maintenance of way. He subsequently held the latter position at Philad lphia, Pa., and West Trenton, N. J., until December, 1941, when he joined Oxweld as assistant chief engineer. In 1943 Mr. Torbert was promoted to assistant to vice-president in which capacity he was serving at the time of his recent appointment.

The **Joy Manufacturing Company,** Oliver Building, Pittsburgh, Pa., has announced acquisition of all capital stock of the **Mines Equipment Company.** Joy will continue to manufacture the complete line of Mines' products, supplementing its own stationary and portable air compressors, pneumatic drills and hoists, and "Axivane" fans and blowers.

Turco Products, Inc., has announced the appointment of **F. E. Warnes** as director of sales promotion, with headquarters at Los Angeles, Cal. Mr. Warnes formerly was sales supervisor for the Pacific Northwest.

C. J. Beneke has been appointed product manager for the wire, rod, bar, structurals and cable division of the **Reynolds Metals Company,** at Louisville, Ky.

The **Electrical Industrial Truck Association** has moved its executive offices from 29-28 41st avenue, Long Island City 1, N. Y., to 3701 North Broad street, Philadelphia 40, Pa.

George S. Grassmyer has been appointed manager of inspection of the Eddystone division of the **Baldwin Locomotive Works.** Mr. Grassmyer formerly was a member of the field service and inspection department.

Frank E. Cheshire, formerly vice-president of the Chicago, Indianapolis & Louisville and, more recently, transportation engineer with the General American Transportation Corporation, Chicago, has joined the **International Steel Company,** Evansville, Ind., as manager of sales for the firm's recently created railway division.

Erle K. Theimer, assistant traffic manager of the **Crane Company,** Chicago, has been advanced to traffic manager there. Mr. Theimer was with the Chesapeake & Ohio for 22 years, and was serving as commercial agent at Chicago when he joined Crane in 1947.

The **L. J. Wing Manufacturing Company** has announced the appointments of **Albert D. Becker** as representative for the eastern section of New York state, Vermont and Berkshire county in Massachusetts, with headquarters at 434 Clinton avenue, Albany, N. Y., and **Fred McMeans** as representative for British Columbia, with headquarters at 451 West Broadway, Vancouver, B. C.

M. L. Gray, vice-president and export manager of the **Union Switch & Signal Co.,** has retired after nearly 44 years of service. Mr. Gray was graduated from Pennsylvania State College. He joined Union Switch & Signal on January 24, 1905, as an inspector and later was transferred to the sales department. In 1916 he was appointed assistant to the general sales manager and later assistant to the vice-president and general sales manager. Mr. Gray was elected acting vice-president in 1929, which position he held until April, 1936, when he was elected vice-president. He was elected vice-president and export manager on April 17, 1945, the position he held at the time of his recent retirement. On January 30, 1948, he was elected a director of the company and will continue in this capacity.

James Wright, assistant vice-president of the **Union Switch & Signal Co.,** has been appointed assistant to the president, with headquarters at Swissvale, Pa.

OBITUARY

Harold C. Bullard, plant engineer of the Bullard Company, died on June 28, at his home in Fairfield, Conn. He was 69 years old.

Charles H. Morse, III, vice-president in charge of research, patents, traffic, the Western Pump division, manufacturing plants and production of Fairbanks, Morse & Co., with headquarters at Chicago, was killed on July 9 when a company plane in which he was making a business flight to St. Louis, Mo., crashed and burned near Roanoke, Ill. Mr. Morse, who was also president of Inland Utilities Company (a subsidiary of Fairbanks, Morse), was the son of Colonel Robert H. Morse, president of Fairbanks, Morse. He began his career with the firm as a factory worker in the Three Rivers, Mich., plant 31 years ago and worked his way through various departments of the plant, later being promoted to sales engineer, with headquarters at St. Paul, Minn. He subsequently served in a similar capacity at Memphis, Tenn., and Kansas City, Mo., until 1935, when he was elected president of Inland Utilities. Mr. Morse became also vice-president in charge of research, patents, traffic and the Western Pump division of the parent company in October, 1945, and was appointed vice-president in charge of manufacturing plants and production in June, 1946, all of which positions he held at the time of his death.

Charles H. Morse, III

OVERSEAS

Colombia.—The National Railways of Colombia are interested in constructing facilities for preservative treatment of railroad ties and, also, want information on modern train-dispatching methods and equipment, according to Foreign Commerce Weekly. Improvements are contemplated in the train-dispatching system in use on the Bogota-Ibague and Cali-Buenaventura lines, about 300 km. and 200 km. long, respectively. Although it is desired to limit expenditures for the new system on these two lines to $20,000, the American embassy at Bogota has been informed that a larger allocation would be considered. Firms interested in investigating these opportunities may communicate with the Consejo Administrativo de los Ferrocarriles Nacionales, Bogota, either directly or through the American embassy. In any case, the embassy would appreciate receiving copies of correspondence on these matters.

EQUIPMENT AND SUPPLIES

FREIGHT CARS

9,121 Freight Cars Delivered in June

Freight-train cars for domestic use delivered during June totaled 9,121, including 3,316 delivered by railroad shops, compared with May deliveries of 9,525 cars, which included 2,646 delivered by railroad shops, the American Railway Car Institute has announced. June deliveries included 1,162 box cars, 2,015 gondola cars, 4,166 hopper cars, 864 refrigerator cars, 414 tank cars and 500 cars of other types.

Freight-train cars ordered last month for domestic use amounted to 153, compared with 589 cars ordered in May. In both months all orders were placed with contract builders. The backlog of orders on July 1, the institute said, was 42,813 cars, including 20,534 on order from railroad shops, compared with 52,281 on order on June 1 and 122,181 on order on July 1, 1948.

LOCOMOTIVES

Uruguay and Pakistan To Purchase Locomotives

The director general of the Uruguayan State Railways has announced that offers to supply locomotives for those lines will be considered, according to Foreign Commerce Weekly. Also, according to the same publication, the Railway division of the Pakistan Ministry of Communications wishes to receive quotations covering the supply of 25-ton, 5 ft.-6 in. gage, Diesel-electric switching locomotives developing 150 hp. at 1,000 r.p.m.

It is understood that Uruguay will purchase three locomotives in the near future, and that an unspecified number probably will be acquired later. The first three are to be steam locomotives, new or used, developing 1,200 to 1,300 hp., with standard gage and a maximum axle load of 15½ tons. For subsequent purchases, new Diesel or Diesel-electric locomotives probably will be specified. Further information may be obtained from the Director General, Uruguayan State Railways, Montevideo, Uruguay, and the Director General, Department of Supply and Development, Frere road, Karachi, Pakistan.

The **Erie** has ordered seven Diesel-electric locomotive units from the Baldwin Locomotive Works. Included in the order are one 1,000-hp. switching and six 1,500-hp. road-switching units.

The **Union** (Pittsburgh, Pa.) has ordered five 1,500-hp. heavy duty Diesel-electric road-switching locomotive units from the Baldwin Locomotive Works.

SIGNALING

The **Union Pacific** will spend $1,568,820 for installation of 142 mi. of automatic cab signal circuits and replacement with color-light signals of the remaining semaphore signals between Summit, Neb. (Omaha), and Grand Island. With the completion of this work, automatic cab signals will be in use on 755 mi. of the 812 mi. of double-track main line between Summit and Green River, Wyo. The excluded 57 mi. of line, between Cheyenne, Wyo., and Laramie, includes a 16-mi. section of divergent main tracks just east of Laramie.

The **Ontario Northland** has ordered materials from the General Railway Signal Company for installation of absolute permissive block signaling on 26 mi. of single track between Swastika, Ont., and Englehart. This order includes type-SA searchlight signals, type-K relays and welded steel instrument cases.

ABANDONMENTS

Norfolk & Western.—Division 4 of the Interstate Commerce Commission has denied this road's application for authority to abandon its 4.89-mi. Honaker branch extending from the connection with its main line at Honaker, Va., to the end of the branch at Blackford. The report said that the proposed abandonment would result in serious inconvenience to the shippers being served by the branch and that the N.&W. has not presented evidence sufficient to prove that continued operation of the branch would impose an undue burden upon it or upon interstate commerce.

Applications have been filed with the Interstate Commerce Commission by:

Georgia & Florida.—To abandon approximately 97 mi. of its line, including its 17.9-mi. Broxton branch, from Broxton Junction, Ga., to Relee; its Madison, Fla., section, from Madison, Fla., to a point 3.5 mi. south of Valdosta, Ga., 26.8 mi.; the 41.8-mi. line of its subsidiary, the Statesboro Northern, from Stevens Crossing, Ga., to Statesboro; 2.4 mi. of terminal facilities in Statesboro owned by the Statesboro Terminal and operated under lease, and the 8-mi. Millen branch between Garfield, Ga., and Summit-Graymont. The abandonment sought is part of a plan "to save and improve, with the hope of ultimate reorganization," the most important portions of the main line as recommended by William Wyer & Co., railroad consultants, who were retained to make a survey of the G.&F. The G.&F. has been in receivership since 1929 and the application was filed pursuant to a June 8 order of the U. S. District Court of Georgia as a result of the Wyer report. This report also recommended that proceeds from sale of the above lines be applied towards acquisition of nine Diesel-electric locomotives and 150 freight cars and the equipping of present shops to service the new equipment.

Nacogdoches & Southeastern.—To abandon a 28-mi. line from a point near Oil Springs, Tex., to Calgary. The application said the Frost Lumber Industries, owners of the line, will discontinue logging operations August 1 and take up the tracks soon thereafter.

Division 4 of the I.C.C. has **authorized**:

Lehigh Valley.—To abandon its 0.2-mi. Humboldt branch, its 0.1-mi. Crystal Ridge branch, and an 0.67-mi. portion of its Cranberry Colliery branch. The lines involved are all located in Luzerne County, Pa. The commission's report said that mines formerly served by the lines have been worked out.

Natchez, Urania & Ruston.—To abandon a 3.9-mi. portion of its line from Olla, La., to a point 1.75 mi. north of a junction with the Missouri Pacific at Urania. The commission's report said the traffic available in the area has decreased in recent years because truck service is provided by lumber dealers and common carriers.

New York, Ontario & Western.—To abandon operation of the Ontario, Carbondale & Scranton's 2-mi. Northwest branch in Lackawanna County, Pa. Abandonment of the line by the O.C.&S. was authorized in the same commission report which noted that the line serves only an anthracite coal breaker which is not dependent upon rail service as the run-of-mine coal moves by truck to the breaker over private roads.

FINANCIAL

Approves "Q" Plan for New Kansas City-St. Louis Route

Division 4 of the Interstate Commerce Commission has approved the acquisition by the Chicago, Burlington & Quincy of trackage rights under which it will use about 158 mi. of Gulf, Mobile & Ohio lines between Rock Creek Junction, Mo., and Francis and thus establish an improved freight route between Kansas City and St. Louis. The lines involved are the 156-mi. line of the Kansas City, St. Louis & Chicago between Rock Creek Junction and Mexico, Mo., and the 2-mi. line of the Louisiana & Missouri River between Mexico and Francis, both of which were acquired by the G.M. & O. in connection with its acquisition of the Alton.

The same lines were also involved in a previous application, denied by the commission, wherein the Burlington sought approval of arrangements similar to those it has now obtained, and the Atchison, Topeka & Santa Fe sought to obtain a direct Kansas City-St. Louis line (see *Railway Age* of July 24, 1948, page 101). The Burlington's present plan also contemplates acquisition of rights over 0.81 mi. of tracks in the Kansas City terminal area where the K.C.St.L. & C. line connects with the Kansas City Terminal.

Consummation of the plan will give

the Burlington a 273-mi. freight route between Kansas City and St. Louis, 65 mi. shorter than its present route via Hannibal, Mo., and Cameron Junction. The new route will "compare favorably" with competing routes of the Missouri Pacific and Wabash, the commission said. There was no railroad opposition, the Burlington having stipulated that it would not object to a condition requiring the continuance of existing through routes and joint rates via St. Louis and Kansas City. The commission imposed such a condition, and another for the protection of interested employees who are not covered by the so-called Washington Job Protection Agreement.

Evidence reviewed by the commission indicated that the Burlington expects the new route to attract enough additional business to increase its gross revenues by approximately $2,646,000 in an "average" year. The additional net income on that basis would be about $736,600. The latter, however, would depend on final arrangements with train-service employees; and such arrangements might reduce it by about $31,000, the commission said.

Rental provisions of the G.M. & O.-Burlington agreement stipulate that the latter will pay 50 per cent of the interest on K.C.St.L. & C. bonds, 50 per cent of the ad valorem and franchise taxes applicable to the Rock Creek Junction-Francis line, and 2 per cent annually on amounts spent by the G.M. & O. for jointly-used additions and betterments. Maintenance and operating expenses of the Rock Creek Junction-Mexico segment will be divided on the basis of car-mile use of the line, but the proportion payable by the Burlington is not to be less than 30 per cent. For use of the 2-mi. line between Mexico and Francis and the terminal tracks at Kansas City, the Burlington will pay per train-mile "an amount equal to the average amount per train-mile paid . . . during the same month for use of the Mexico-Rock Creek Junction line." The Burlington estimated that its proportion of use of the lines in an "average" year will amount to 33.87 per cent, and that its payments therefor will total $374,195.

A table in the commission's report summarized estimates of record in the case which indicated that $3,969,534 will be spent to rehabilitate the Mexico-Rock Creek Junction line. In addition to improvements already made, at a cost of $227,548, the estimate includes $962,432 for signaling facilities and centralized traffic control, $2,679,554 for rail, and $100,000 for "miscellaneous" improvements.

Alleghany Corporation.—*Security Transactions.*—During June, this company purchased the following railroad securities: 45,538 shares of Kansas City Southern preferred, 1,600 shares of Chicago, Rock Island & Pacific common and 500 shares of Seaboard Air Line preferred. It also sold during the month 50,000 shares of Rock Island preferred.

Atchison, Topeka & Santa Fe.—*Purchase.*—This road has applied to the Interstate Commerce Commission for authority to purchase approximately 1.2 mi. of the Colorado's main line right-of-way in Pueblo, Colo., and approximately 38 acres of land and 0.76 mi. of switching tracks from the Pueblo Terminal. For the property, the S.F. would pay the Colorado $57,000 and the Pueblo Terminal $51,150 and would make any necessary relocations of the former's lines. The application said such purchases would enable the S.F. to enlarge and relocate its Pueblo yard.

Chicago, Rock Island & Pacific.—*Acquisition.*—Examiner Paul C. Albus has recommended in a proposed report that Division 4 of the Interstate Commerce Commission conditionally authorize this road to acquire control, through stock ownership, of the Pullman, an industrial switching line in the Chicago area. Pullman's capital stock consists of 5,000 shares of common, par value $100 per share; and the Rock Island proposes to purchase it all for $1,175,000 from the Pullman Finance & Properties Co., a subsidiary of Pullman, Inc. It would operate the road initially under a 5-year lease, the ultimate plan being to integrate the property into the Rock Island system. The purchase agreement also contemplates that the Rock Island's subsidiary, Rock Island Improvement Company, would purchase from Pullman Finance, for $1,025,000, about 355 acres of industrial property located along Pullman's line.

Opposing interveners in the case include the Illinois Central and the Chicago Belt. The I.C.'s position, as summarized by the examiner, is that "it would not be in the public interest to permit the Rock Island to invade the Lake Calumet district by the expediency of buying Pullman." The Belt contends that it should be permitted to acquire control of Pullman because the latter's "independent status" would thus be "best maintained." If the application is granted, Belt asks that conditions be imposed to "insure continuation of the present, free, open and impartial operation of Pullman." Among the conditions which Examiner Albus would have the commission attach to its favorable action on the application are requirements along the foregoing line, although they are the conditions suggested by the Chesapeake & Ohio, another intervener, which does not oppose the application but wants to insure preservation of "the neutrality heretofore exercised by Pullman in connection with the maintenance of through routes, joint rates, and switching arrangements presently existing."

Other railroad interveners are the New York Central and Indiana Harbor Belt, which do not oppose the application nor request the imposition of any conditions; their interest is in having the benefit on an equal basis with other roads of any conditions that may be imposed. The benefits of the conditions suggested by the C. & O. and adopted by the examiner would extend on an equal basis to all of Pullman's present connections. The only other recommended condition is the usual one for the protection of employees who might be adversely affected by the proposed acquisition.

The city of Chicago supports the application because the proposed acquisition would be in line with its plan to secure the services of a trunk line for the Lake Calumet Harbor facilities owned by the city. The only shipper witness to appear at the hearing was the manager of a warehouse served by the Belt, and he took a position similar to that road's.

Examiner Albus said the Rock Island has sustained the burden of proof that the proposed acquisition is consistent with the public interest. The fact remains, the proposed report continued, that the Rock Island, by virtue of its contract with Pullman, is the only carrier in a position to submit an application at this time. The report noted that Pullman has no industrial department and that "little or no efforts" have been made to develop the property. But, the report added, it is expected that this condition "will be remedied" through the efforts of Rock Island's "well-organized" industrial department, and that "adequate" transportation service will be available to the industries now served by Pullman.

Georgia, Florida & Alabama.—*Reorganization.*—All but one change sought in

Natives of the Santa Fe Indian village at the Railroad Fair in Chicago lost little time bringing forth items for purchase when they were told that E. A. Bromley guides the spending of $248,000,000 annually as vice-president in charge of purchases and stores for Canada's largest spender—the Grand Trunk Western-Canadian National System. While a Navajo brave helps him don a blanket, a member of the Hopi tribe implores him to buy a silver necklace, too

petitions for modification of this road's plan of reorganization under section 77 of the Bankruptcy Act have been denied by the Interstate Commerce Commission in a supplemental report in the proceeding—Finance Docket No. 14636. The plan, as previously approved by the commission in a report by its Division 4, was outlined in the *Railway Age* of December 4, 1948, page 70. The single change now made in the supplemental report by the entire commission provides for payment in cash of any interest which may accrue on the bankrupt company's 6 per cent, first-mortgage and refunding bonds between December 31, 1948, and the effective date of the plan—if the court should exercise its authority to postpone the effective date, now fixed as January 1, 1949. The court's authority to postpone the date was set out in a provision of the commision's order which went on to say that such postponement may be for "6-months periods or multiples thereof" so that the effective date "will not be more than 6 months prior to the date of consummation" of the plan.

The interest provision was among modifications sought in petitions filed by the Seaboard Air Line, lessee of the bankrupt's properties and owner of all of its common stock and about 92½ per cent of the bonds involved; and by the Bankers Trust Company and R. Gregory Page, trustees under the first and refunding mortgage. These petitioners also contended that the bondholders were entitled to all of the reorganized company's securities, that contention having been based on court rulings to the effect that senior creditors are entitled to full satisfaction of their claims before provision can be made for junior creditors or stockholders. Under the reorganization plan, the bondholders will receive, for each $1,000 bond and unpaid interest thereon, $360 in cash, $700 in new income bonds, $600 in new preferred and 5 shares of new common stock.

The latter will be no-par stock with a stated value of $100 per share, but distribution to bondholders on the foregoing basis will take up only 8,750 shares of the 11,250 shares to be issued. As to the other 2,500 shares, a footnote in the commission's report said: "They may be absorbed by the claims of the bondholders in the event interest on unpaid interest is allowed by the court; they may go entirely or in part to satisfy general unsecured claims, dependent upon whether any such claims are allowed by the court . . . ; or they may go entirely or in part to the holders of the outstanding first-preferred stock, depending upon the disposition of the claims mentioned above."

After discussing at some length the S.A.L. and mortgage trustees' contention that the bondholders should have received all of the new company's securities, the commission rejected it with a finding that the bondholders "will receive full compensation through participation in assets, provisions of the new securities, and control of the property, for the senior rights surrendered under the plan." Likewise rejected was the Seaboard's contention that the fund set aside for rehabilitation and betterment of G. F. & A. properties should be larger than the $1,100,000 provided in the plan.

Meanwhile, the commission refused to make any of the modifications sought in another petition filed by the G. F. & A. as debtor company in the proceeding. That petition objected to the plan's provision for continued operation by the Seaboard under a 21-year lease and sought a modification which would order independent operation of the reorganized company. It also sought revision of the new capitalization to permit distribution of all of the new common stock to preferred stockholders of the old company. As to the former proposal, the commission concluded that "the public interest would not be served by permitting independent operation of the debtor's property." The proposal to allocate the new common stock to the debtor's preferred stock, the commission said, "cannot be entertained since the amount of cash and senior securities available for distribution would be inadequate to satisfy the senior creditor claims."

Helena & Northwestern.—*Acquisition.*—Division 4 of the Interstate Commerce Commission has conditionally authorized this recently organized company to acquire from the Missouri & Arkansas a 55-mi. line from Helena, Ark., to Cotton Plant. The line is part of the 335-mi. system formerly operated by the M.&A. but now abandoned by that company as authorized in a previous commission report. For the Helena-Cotton Plant line, the H.&N. will pay $300,000—$100,000 in cash with the remainder financed by a $200,000 mortgage note. Division 4's report approving the acquisition also approved the issuance of this note and other H.&N. plans for raising capital to make the cash payment and to rehabilitate the property and get operations under way. In addition to issuance of the note, the approved plans contemplate the raising of $200,000, including $100,000 through the sale of a $1000-share, $100-par issue of 5 per cent cumulative preferred stock and a like amount through the sale of a 1,000-share, $100-par issue of common stock. The note will bear interest at 4 per cent, and will be payable to the M.&A. in five consecutive annual installments of $40,000 each, beginning December 1, 1950.

One of the two conditions attached by the commission to its approval of the acquisition and financing will require that unpaid dividends on the preferred stock shall not be cumulative beyond three consecutive years, and that while accumulations exist the preferred stock shall have equal voting rights with the common. The other condition will require continuance of arrangements under which the Illinois Central has used for switching operations some of the tracks to be acquired by the H.&N. in Helena. This condition will also transfer to the H.&N. rights which the M.&A. had to conduct switching operations over some of the I.C.'s Helena tracks.

New York, New Haven & Hartford.—*State Purchase of South Station Proposed.*—Governor Paul Dever of Massachusetts has come out in favor of a proposal that that state purchase the South station in Boston from the owning railroads at a cost of not more than $9 million, for the alleged purpose of compelling the New York, New Haven & Hartford to maintain passenger service on lines of the former Old Colony between Boston and points on the south shore and Cape Cod. Under the plan reportedly favored by the governor, and said to be ready for introduction in the state legislature, railroads using the station would pay to the state rentals sufficient to pay off the purchase price, plus interest and maintenance, over a 40-year period, subject to necessary Interstate Commerce Commission approval. The South station is used jointly by the New Haven and the Boston & Albany (New York Central), and is actually owned by the Boston Terminal Company, which, in turn, is owned jointly by the N. H. and the B. & A.

Sanford & Eastern.—*Acquisition and Securities.*—Division 4 of the Interstate Commerce Commission has authorized this road to acquire for $25,000 the Boston & Maine's line from Rochester, N. H., to Westbrook, Me., approximately 45 mi. (See *Railway Age* of April 30, page 64). The S.&E. was also authorized to issue $75,000 of common stock (750 $100-par shares), to S. M. Pinsly of Yonkers, N. Y. The proceeds of the issue will be used as follows: $25,000 to purchase the above line; $10,000 for a down payment on a 44-ton Diesel-electric locomotive to be purchased from the General Electric Company; $3,000 for four used flat cars to be purchased from the New York, New Haven & Hartford; $1,000 for a caboose; $2,000 for additional shop machinery; $10,000 for improvement of facilities; and $24,000 for working capital.

Southern.—*Acquisition.*—Subject to a condition, among others, that the price be reduced from $150,000 to $75,000, Examiner Jerome K. Lyle has recommended in a proposed report that Division 4 of the Interstate Commerce Commission authorize this road to buy that section of the Buffalo, Union-Carolina's line from Buffalo, S. C., through Union to a point 1.6 mi. east thereof, 4.6 mi. The same report also recommended favorable commission action on the Buffalo's application for authority to abandon the remaining 14.6 mi. of its line, from the point 1.6 mi. east of Union to Pride, S. C. The Buffalo is a subsidiary of United Merchants & Manufacturers, Inc., a textile manufacturer which, the abandonment application said, "does not wish to engage further in the railroad business." Arrangements for sale of the Buffalo-Union segment of the line to the Southern were made after the failure of earlier

negotiations for sale of the entire line to local interests or to the Seaboard Air Line, which connects at Pride with the segment now proposed to be abandoned.

The Southern's agreement to purchase the Buffalo-Union segment was contingent upon the Buffalo's obtaining permission to abandon the remainder; and, in agreeing to pay $150,000, the Southern "gave substantial consideration to the additional traffic it would receive," Examiner Lyle said. His recommendation that commission approval of the purchase be conditioned on a cutting of the price to $75,000 was based on his conclusions that this was desirable to provide the Southern "with a cushion against disappointment in the volume of traffic anticipated and in .....intenance of various specific services, which may prove to be of a marginal nature"; and that, under the circumstances, United Merchants should not expect to realize more than the "approximate net salvage value" of the line.

The proposed acquisition and abandonment were opposed by local shipping interests and by the South Carolina Public Service Commission. The shipper opposition, in general, was based on contentions that it was desirable to maintain railroad competition in the territory, and fears that the "somewhat personalized" service accorded by the Buffalo would be lost. In the latter connection, the Southern gave "assurances," but the examiner went along with the shippers' suggestion that "some safeguard is required against the arbitrary repudiation of such assurances in the future." Thus his recommendation that the commission's approval of the purchase be subject to a second condition which would stipulate that "the undertakings assumed by the Southern with respect to the continuation of specific services and facilities are to be continued until relieved by appropriate order of this commission."

A third condition imposes conditions for the protection of Buffalo employees who may be adversely affected. An agreement with respect to such conditions was reached by the Buffalo and the employees involved, and the cost is to be borne by that company or United Merchants. Examiner Lyle would nevertheless impose the employee-protection conditions also on the Southern as the carrier that "will remain subject to the jurisdiction of this commission."

Meanwhile, he had disposed of the opposition of the S. C. Public Service Commission which took the position that "no railroad company has a right to abandon service for the sole reason that it no longer desires to continue in the railroad business." This commission, the proposed report said, made no representations after its attorney requested that "adequate time" be allowed following the hearing for making a "complete study of the case" and a further presentation if such were "deemed necessary." The hearing was held on March 30 and 31, the examiner pointed out, adding that "no further representations have been received."

Wheeling & Lake Erie.—*Bonds.*—This road has applied to the Interstate Commerce Commission for authority to issue and sell $6,870,000 series B general and refunding mortgage bonds and to issue nominally $4,000,000 series C general and refunding mortgage bonds. The proceeds of the series B issue would be applied toward the payment of $6,870,000 of first consolidated mortgage 4 per cent gold bonds due September 1, 1949. The series C bonds would be available for sale, with approval of the commission, to reimburse the W.&L.E.'s treasury for expenditures previously made for improvements. The application also seeks authority for transfer of the series C bonds to the New York, Chicago & St. Louis if the latter's pending application to lease the W.&L.E. is approved by the commission (see *Railway Age* of March 26, page 110). If thus transferred, the bonds could be sold by the Nickel Plate only for the purpose of paying a $5,000,000 W.&L.E. note to the Chase National Bank of New York or to obtain reimbursement for any balances due it from the W.&L.E. under the proposed lease.

Both series of bonds would be dated August 15, would bear interest at a rate to be determined through competitive bidding, and would mature August 15, 1974. The indentures would contain sinking-fund provisions and the redemption prices would be computable after the public offering price of the series B bonds has been fixed.

Average Prices Stocks & Bonds

	July 12	Last week	Last year
Average price of 20 representative railway stocks	36.33	36.43	51.57
Average price of 20 representative railway bonds	84.50	82.81	91.74

Dividends Declared

Alabama & Vicksburg.—3%, semiannual, payable October 1 to holders of record September 8.

Cleveland, Cincinnati, Chicago & St. Louis.—common, $5.00, payable July 30 to holders of record July 15.

Vicksburg, Shreveport & Pacific.—preferred and common, 2½%, semiannual, both payable October 1 to holders of record September 8.

CONSTRUCTION

Work on U. P. Totals $3 1/3 Million

As reported under Equipment and Supplies, Signaling, the Union Pacific plans to spend more than $1½ million on new main-line signaling between Omaha, Neb., and Grand Island.

U. P. company forces, in collaboration, in some instances, with individual contractors, have recently constructed an addition to the mail terminal at Council Bluffs, Iowa, Cooper Construction Company being the contractor ($96,000); constructed at Armstrong yard, Kansas City, Kan., 46,367 ft. of new freight yard tracks (including 64 turnouts), retired 14,073 ft. of track (including 32 turnouts), and lined over 9,800 ft. of existing track ($267,143); installed, also at Armstrong yard, seven 100-ft. steel floodlighting towers ($42,900), and erected a 40-ft. by 72-ft. fireproof building at Salt Lake City, Utah, to house equipment for centralized traffic control for the 325-mi. section of line between Caliente, Nev., and Salt Lake City, the building contractor being the Paulsen Construction Company ($33,640).

Projects underway include: Extension to present 20-ft. wide mail transfer platform and umbrella shed at Council Bluffs, and erection of new 26½-ft. by 1,152-ft. transfer platform and umbrella shed ($101,975); installation at the Union passenger station, Omaha, of additional 30,000-gal. Diesel fuel oil tank enclosed in concrete dike, four additional pumps and piping system, and rearrangement of control lines at both ends of depot platforms ($58,940); installation, at Laramie, Wyo., of 1,375 ft. of overhead 6-in. steam line and 1,150 ft. of 3-in. return line from boiler house at timber treating plant to adzing, boring and incising mill building, replacing a small boiler house near the latter ($35,390); widening of cuts at various locations between Cheyenne, Wyo., and Bitter Creek, and leveling off of old waste piles and filled ground, the waste earth to be placed in windrows well away from track to act as snow fence (contract for grading involving some 226,900 cu. yd. awarded to Morrison-Knudsen $119,325); installation of 3,640 16-ft. panels of wood snow fence to supplement the aforementioned earthwork in protecting cuts ($120,120); installation of 1,800 16-ft. panels of wood snow fence at various points between Pocatello, Idaho, and Shoshone, to protect cuts ($50,000); installation of second-hand 80,000-bbl. Diesel fuel oil storage tank at Pocatello and construction of pumping plant, 1,470 ft. of additional trackage and other facilities necessary to supplement present 4,000-bbl. storage tank ($151,400); replacement of various boilers, smokestacks and other facilities at the timber treating plant in The Dalles, Ore. ($70,000); enlargement of standard clearance of the bore of tunnel No. 3½ near Campbell, Ore., replacement of present timber lining and portals with reinforced concrete, and extension of bore 30 ft. west ($347,500); installation of 148.2 lin. mi. of standard right-of-way fence at six locations between Milford, Utah, and Tintic, to protect livestock and avoid damage claims ($152,500); laying of 1,622 ft. of 12-in. and 14-in. pipe line at Las Vegas, Nev., building of 16-ft. by 23-ft. pumphouse and power line and installation of two booster pumps to provide water service to Bonanza Village and vicinity ($31,660); building of additions to and rearrangement of Diesel servicing

facilities at Los Angeles, Cal. ($36,800); and installation of 1,350 16-ft. panels of wood snow fence at various locations between Salt Lake City and Lynndyl, Utah, to protect cuts ($40,000).

Northern Pacific.—This road has awarded a contract to Leo S. Ross Construction Company, Yakima, Wash., for construction of a new 24-ft. by 65-ft. freighthouse and office building at Grandview, Wash., at a cost of approximately $83,000.

RAILWAY OFFICERS

EXECUTIVE

J. L. McKee, vice-president-assistant to the president, New York Central System, with headquarters at Chicago, retired on July 1. Mr. McKee was born at Constantine, Mich., on June 8, 1881, and entered railroad service in 1900 with the Atchison, Topeka & Santa Fe, serving for brief periods as express messenger and chainman. In 1901, he became yard bill clerk on the Lake Shore & Michigan Southern (now N. Y. C.) at Elkhart, Ind. He subsequently held the positions of freight brakeman, switch tender, switchman and assistant yardmaster, becoming general yardmaster of the same road at Windsor, Ont., in 1910. After serving as trainmaster and division superintendent, he joined the Delaware, Lackawanna & Western in 1917, as superintendent at Buffalo, N. Y. The following year he was advanced to assistant general superintendent of the Michigan Central at Detroit, Mich., and was successively appointed general superintendent and assistant general manager of that road at Detroit. In 1932, Mr. McKee was promoted to assistant vice-president of the N. Y. C. at Chicago and in 1937, became assistant vice-president and general manager. Six years later he was promoted again to vice-president and general manager, with jurisdiction over the Michigan Central. Mr. McKee became vice-president of the N. Y. C. System at Chicago in August, 1944, and was advanced to vice-president-assistant to the president in August, 1947, which position he held at the time of his retirement.

J. L. McKee

L. A. Kane, superintendent of the Utah, with headquarters at Martin, Utah, has been elected president and general manager and a director, succeeding **G. S. Anderson,** who has retired after 32 years of service.

FINANCIAL, LEGAL & ACCOUNTING

George C. Holdrege, whose appointment as assistant general solicitor of the Union Pacific at Omaha, Neb., was reported in the *Railway Age* of July 9, is a graduate of the University of Nebraska Law School. He began his railroad career with the U. P. in 1929 as a law clerk, and in 1934 was appointed an attorney. After serving as assistant general attorney from 1936 to July, 1942, Mr. Holdrege was promoted to general attorney, the position he held until his new appointment.

Dewey Michael Callahan, freight claim adjuster of the Missouri-Kansas-Texas Lines, has been appointed freight claim agent at Parsons, Kan., succeeding the late **William H. Geagen.**

R. C. Hendon, manager of the Prevention and Security department of the Railway Express Agency, with headquarters at New York, has been appointed manager of the General Claim department, a newly established central control agency for claim handling procedures. Operations of the Prevention and Security department will be incorporated into the General Claim department.

C. C. Michie, Jr., assistant insurance engineer of the Chesapeake & Ohio, has been appointed insurance engineer, with headquarters as before at Cleveland, Ohio, succeeding **C. C. Strong,** who has retired from active service under the company's retirement plan, after more than 30 years of service.

E. A. White, car accountant of the Chicago, Burlington & Quincy, with headquarters at Chicago, has been promoted to auditor of freight accounts, succeeding the late **F. C. Kersten.** Mr. White has been succeeded by **W. N. Ernzen. F. J. Dillon** has been appointed assistant auditor of freight accounts.

C. B. Matthai, whose promotion to general solicitor of the Union Pacific at Omaha, Neb., was reported in the *Railway Age* of July 9, entered railroad service with the U. P. in June, 1902, as secretary to the general attorney and later became chief clerk in the law department. While holding the latter position he attended Creighton University Law School at night, and upon graduation in 1914 was admitted to law practice. During the period of federal control of the railroads, he served as assistant corporation counsel, and at the termination of control he was again appointed attorney, being advanced to general attorney in 1935. Mr. Matthai, who has also served as assistant secretary of the system lines since 1921, subsequently became assistant general solicitor, the post he held at the time of his recent promotion.

C. B. Matthai

OPERATING

L. R. Taylor, assistant superintendent and master mechanic of the Utah, at Provo, Utah, has been appointed superintendent and master mechanic at Martin, Utah. The position of assistant superintendent has been abolished.

Lee Arnett Grubbs, general superintendent of the Eastern General division, Chesapeake district, of the Chesapeake & Ohio at Clifton Forge, Va., whose retirement was reported in the *Railway Age* of July 9, was born at Pendleton, Va., on October 7, 1883. Mr. Grubbs entered the service of the C. & O. on October 30, 1900, as telegraph operator at Atlee, Va., and subsequently served as train dispatcher, chief dispatcher, trainmaster, assistant superintendent and superintendent of the Clifton Forge division, successively, all at Clifton Forge. He was named general superintendent of the Eastern General division in June, 1940.

C. J. Nelson, superintendent, Chicago Car Interchange Bureau, retired on June 30, and has been succeeded by **H. L. Hewing,** district general car foreman of the Chicago, Milwaukee, St. Paul & Pacific at Chicago.

TRAFFIC

C. S. Doupe, district freight agent of the Canadian Pacific at Fort William, Ont., has been transferred to Edmonton,

Alta., succeeding **H. K. Wright.** Mr. Doupe has been succeeded by **E. E. Bartlam,** district freight agent at Moose Jaw, Sask. Mr. Wright has been appointed district freight agent at Brandon, Man., succeeding **J. A. MacDonnell,** who has replaced Mr. Bartlam.

J. F. Sullivan, who will retire on July 31 as passenger traffic manager of the Southern Pacific Lines in Texas and Louisiana at Houston, Tex., as reported in the *Railway Age* of July 2, was born on July 27, 1879, at Cincinnati, Ohio, where he attended the public schools. He entered railroad service with the S. P. Lines in Texas and Louisiana in August, 1899, as a stenographer in the superintendent's office at Houston, and in 1901

J. F. Sullivan

became ticket agent at Lake Charles, La. He returned to Houston as city passenger and ticket agent two years later, was appointed traveling passenger agent there in 1910 and, from 1917 to 1927, served as assistant general passenger agent in Houston. Mr. Sullivan was subsequently advanced to general passenger agent, being promoted to passenger traffic manager in November, 1941, which position he will continue to hold until his retirement.

MECHANICAL

Clyde B. Hitch, chief mechanical officer of the Chesapeake district of the Chesapeake & Ohio at Richmond, Va., whose retirement was reported in the *Railway Age* of July 9, was born at Terre Haute, Ind., on November 19, 1881. Mr. Hitch entered railroad service in 1896 as a machinist with the Vandalia (now part of the Pennsylvania) at Terre Haute, completing his apprenticeship in 1900. He later served as machinist on the Pere Marquette, Louisville & Nashville, Iron Mountain (now Missouri Pacific), Southern, and Chicago & Eastern Illinois. Mr. Hitch entered the service of the C.&O. as machinist at Lexington, Ky., in 1902 and subsequently served as general foreman, master mechanic and general master mechanic at various points. He was appointed assistant superintendent motive power at Huntington, W. Va., in 1934; superintendent motive power at Richmond in 1938, and chief mechanical officer at Richmond on May 1, 1943.

Richard J. Williams, chief mechanical officer of the Pere Marquette district of the Chesapeake & Ohio at Detroit, Mich., whose retirement was reported in the *Railway Age* of July 9, was born at Indianapolis, Ind., in 1882, and was graduated from Purdue University in 1905. Mr. Williams entered railroad service in 1899 as a helper on the Peoria & Eastern

Richard J. Williams

(now part of the New York Central) and, following his graduation from college, became a special apprentice, subsequently serving as foreman and shop superintendent. In 1917 he was appointed superintendent of motive power of the Pere Marquette, which was subsequently merged with the C.&O. Mr. Williams was named chief mechanical officer in 1943.

L. E. Dix, who will retire on August 1 as mechanical superintendent of the Texas & Pacific at Dallas, Tex., as reported in *Railway Age* of July 2, is a

L. E. Dix

native of Holton, Kan., and began his railroad career as a machinist apprentice with the Chicago, Rock Island & Pacific at Horton, Kan. He later served as machinist with the Atchison, Topeka & Santa Fe and the Missouri Pacific, and as master mechanic of the Union (a subsidiary of the M. P.) at Memphis, Tenn. In 1916 he was appointed master mechanic of the Texas & Pacific-M. P. Terminal (a joint subsidiary of the T. & P. and M. P.) at New Orleans, La., and in 1920 he was made master mechanic of the T. & P. at Fort Worth, Tex. In 1922 Mr. Dix was appointed fuel supervisor, becoming mechanical superintendent in October, 1946.

ENGINEERING & SIGNALING

Frank R. Woolford, engineer maintenance of way and structures of the Western Pacific at San Francisco, Cal., has been promoted to chief engineer at that point, succeeding **Thomas L. Phillips,** who has retired after nearly 44 years of service with the W. P. **W. T. Richards,** division engineer, Western division, with headquarters at Sacramento, Cal., has replaced Mr. Woolford and has been succeeded by **C. E. Elliott,** estimating engineer.

Harry C. Lorenzen, whose retirement as signal engineer and superintendent of telegraph, Chesapeake & Ohio, Pere Marquette district, with headquarters at Detroit, Mich., was reported in *Railway Age* of July 2, was born on May 9, 1883, at Detroit, where he attended the public schools and Detroit Institute of Technology. He entered railroad service in August, 1902, with the Michigan Central (part of the New York Central), serving successively as helper, signal fitter and wireman on construction work. In 1905 he became employed as signal maintainer with the Interborough Rapid Transit Company, New York, and a year later joined the N. Y. C., electric zone, as signal inspector, construction. After holding the position of signal foreman, electric interlocking construction and maintenance on the M. C., from 1907 to 1910, he returned to the N. Y. C. to serve successively as circuit designer, signal inspector, circuit engineer, office engineer and construction engineer at Albany, N. Y. Mr. Lorenzen became assistant engineer, signal department, with the Pere Marquette in 1916, being appointed assistant signal engineer in 1923. He was advanced to signal engineer and superintendent of telegraph in January, 1942.

Frank Aikman, Jr., has been appointed engineer maintenance of way of the Long Island, with headquarters at Jamaica, N. Y., a new post. He succeeds **John W. Wallenius,** former division engineer of the Long Island, who has been appointed division engineer of the Eastern division of the Pennsylvania at Pittsburgh, Pa. A native of Brooklyn, N. Y., Mr. Aikman went to work for the New Jersey State Highway Commission after his graduation from Lafayette College in 1932 with the degree of B.S. in C.E. In 1934 he

joined the P.R.R. as an assistant on the engineering corps of the New York division and the following year went to the L.I. in the same capacity at Hicksville, N. Y. Returning to the Pennsylvania in 1936, Mr. Aikman served as assistant supervisor of track on the Delmarva and Maryland divisions. In August, 1939, he

Frank Aikman, Jr.

was promoted to supervisor of track on the Toledo division and thereafter served in that capacity on the Logansport, St. Louis and Pittsburgh divisions until 1946, when he resigned to enter the food processing business at Latrobe, Pa. In November, 1948, he became associated with the Railroad Siding Construction Company of Pittsburgh, from which he was appointed to his present position with the Long Island.

John R. Prizer, whose appointment as engineer maintenance of structures of the Central of New Jersey at Jersey City, N. J., has been previously reported in the *Railway Age*, was born on March 22, 1886, at Pottstown, Pa., and was graduated from Lehigh University in 1908. Mr. Prizer entered railroad service in 1909 with the C. N. J. but from 1910 to 1915 was with the McClintic-Marshall Construction Company. He returned to the Central of New Jersey in 1915 and was serving as division engineer at Mauch Chunk, Pa., at the time of his appointment as engineer maintenance of structures.

Bernard J. Minetti, whose appointment as engineer structures of the Central of New Jersey at Jersey City, N. J., was recently reported in the *Railway Age*, was born on March 28, 1906, at New York. Mr. Minetti was graduated from St. Augustine's Academy and Brooklyn Polytechnic Institute, receiving his civil engineering degree in 1927 and the degree of Master of Civil Engineering in 1941 from the latter. He also attended New York University, Department of Architecture. Mr. Minetti entered railroad service in May, 1929, as bridge designer with the Pennsylvania at New York and from November, 1929, to February, 1942, served with the New York Central at New York as bridge designer and detailer and as assistant engineer. He joined the C. N. J. at Jersey City on February 2, 1942, as structural draftsman, being appointed assistant engineer on February 1, 1946, and assistant bridge engineer on January 1, 1947. Mr. Minetti served as bridge engineer from June 1, 1947, until he became engineer structures.

H. W. Johnson, assistant chief engineer of the Chicago Great Western, has been appointed chief engineer, with headquarters at Chicago, succeeding **W. C. Groth,** who has retired after 43 years of service.

Mr. Groth was born at Preston, Minn., on September 14, 1882, and, from 1900 to 1904, attended the University of Minnesota. He began his railroad career in 1905 with the Minneapolis, St. Paul &

W. C. Groth

Sault Ste. Marie on location and construction work, and a year later joined the Great Western at St. Paul, Minn., as an instrumentman. In 1911 he was appointed division engineer, with headquarters at Clarion, Iowa, and in 1918 was transferred to St. Paul. Mr. Groth was advanced to chief engineer at Chicago in January, 1933, in which capacity he served until his retirement.

Augustus Ecton Botts, assistant chief engineer (maintenance) of the Chesapeake district of the Chesapeake & Ohio, with headquarters at Richmond, Va., has retired after 41 years' service with that road. Mr. Botts was born in Bethel, Ky., on July 15, 1882, and was educated in the Sharpsburg, Ky., schools and at the University of Kentucky, where he studied mechanical engineering. He entered the service of the C. & O. in 1906 as a rodman at Ashland, Ky., and seven years later became division engineer at Ashland, subsequently transferring to Huntington, W. Va. In 1928 Mr. Botts became assistant engineer maintenance of way at Richmond, in which capacity he served until January 1, 1946, when he was named assistant chief engineer.

Edward J. Robrecht, whose appointment as assistant engineer maintenance of structures of the Central of New Jersey at Jersey City, N. J., was recently reported in the *Railway Age*, was born on September 13, 1887, at Newark, N. J. Mr. Robrecht was graduated from Cooper Union in 1910 and entered railroad service in April, 1911, in the engineering department of the C. N. J. He was transferred to the maintenance of way department in March, 1930, where he has since remained in connection with bridge and building work. Mr. Robrecht was assistant division engineer before his appointment as assistant engineer maintenance of structures.

SPECIAL

The Southern Pacific has appointed the following assistant managers of personnel at San Francisco, Cal.: **A. P. Brown,** heretofore supervisor of shopping schedules at San Francisco; **W. G. Kelly,** formerly assistant to manager of dining cars, hotels, restaurants and news service at that point, and **K. K. Schomp,** heretofore assistant division superintendent at Los Angeles, Cal.

OBITUARY

William H. Geagen, freight claim agent of the Missouri-Kansas-Texas Lines at Parsons, Kan., died recently.

John H. Valentine, superintendent of the Milwaukee division of the Chicago, Milwaukee, St. Paul & Pacific, at Milwaukee, Wis., died in that city on July 6. Mr. Valentine was born at Cross Plains, Wis., on October 3, 1888, and entered railroad service in 1904 as a telegraph operator on the Chicago, Milwaukee & St. Paul (now C.M.St.P.&P.). For the next five years he served at various points on the LaCrosse (Wis.), Racine and Southwestern divisions as agent and operator, and from 1909 to 1925 he held the positions successively of telegraph operator in the dispatcher's office of the Chicago and Milwaukee division at Chicago, train dispatcher at that point, night dispatcher and chief dispatcher of the Madison division at Madison, Wis., and the Illinois division at Savanna, Ill. He was subsequently promoted to trainmaster of the Kansas City division, with headquarters at Ottumwa, Iowa, and in 1926 became assistant superintendent, Chicago terminals. He was advanced to superintendent Superior division, at Green Bay, Wis., in 1928. Two years later Mr. Valentine was transferred to Terre Haute, Ind., and in 1932 was appointed superintendent at Milwaukee.

F. C. Kersten, auditor of freight accounts of the Chicago, Burlington & Quincy, at Chicago, died on June 15 at MacNeal Memorial Hospital, Berwyn, Ill.

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF MAY AND FIVE MONTHS OF CALENDAR YEAR 1949

Name of road		Av. mileage operated during period	Operating revenues			Operating Expenses					Operating ratio	Net from railway operation	Railway tax accruals	Net railway operating income	
						Maintenance of									
			Freight	Passenger	Total (inc. misc.)	Way and structures	Equipment	Traffic	Transportation	Total				1949	1948
Akron, Canton & Youngstown	May	171	394,637	49	410,977	73,060	45,284	26,406	117,484	286,308	69.7	124,669	49,736	62,762	93,475
	5 mos.	171	2,021,690	277	2,104,765	371,962	241,013	141,217	619,266	1,512,907	71.9	591,858	232,947	283,541	465,296
Atchison, Topeka & Santa Fe System	May	13,103	30,550,233	3,779,423	37,813,095	7,322,714	7,640,298	1,090,498	13,982,512	31,720,473	83.9	6,092,622	3,531,822	2,003,852	4,975,885
	5 mos.	13,103	154,482,890	19,447,602	191,434,333	32,119,074	40,251,017	4,821,407	68,801,669	154,797,655	80.9	36,636,678	20,210,137	15,753,938	20,836,081
Atlanta & St. Andrews Bay	May	82	126,093	1,273	132,970	24,011	12,257	6,923	38,001	92,816	69.8	40,154	15,365	13,283	48,118
	5 mos.	82	775,217	6,258	815,902	143,096	76,739	34,147	220,128	531,833	65.2	284,069	110,716	105,487	195,106
Atlanta & West Point	May	93	250,841	38,691	325,484	47,812	52,160	13,849	165,889	302,750	93.0	22,734	15,680	—10,321	17,221
	5 mos.	93	1,257,813	229,102	1,684,461	196,534	254,338	73,418	856,260	1,497,357	88.9	187,104	109,929	—1,754	89,664
Western of Alabama	May	133	263,946	38,230	328,643	43,995	57,654	13,766	147,552	283,977	86.4	44,666	29,395	16,208	36,492
	5 mos.	133	1,307,058	226,883	1,684,087	219,667	282,192	72,873	761,337	1,442,563	85.7	241,524	157,726	93,170	191,361
Atlantic Coast Line	May	5,562	8,215,174	1,141,283	10,086,084	1,690,359	1,991,358	293,750	4,411,207	8,852,927	87.8	1,233,157	800,000	157,441	556,802
	5 mos.	5,562	44,818,148	9,323,578	58,274,444	8,265,142	10,294,541	1,546,752	23,814,915	46,635,891	80.1	11,638,553	5,800,000	4,515,928	5,202,323
Charleston & Western Carolina	May	343	405,396	1,930	415,848	81,945	73,125	15,035	180,481	362,986	87.3	52,862	25,000	9,625	76,753
	5 mos.	343	2,037,917	14,396	2,102,147	404,981	393,083	78,594	888,461	1,820,884	86.6	281,263	140,000	83,358	167,726
Baltimore & Ohio	May	6,202	30,735,219	1,806,536	34,373,953	4,987,691	6,607,404	786,301	13,645,454	27,373,408	79.6	7,000,545	2,914,080	3,072,715	3,953,709
	5 mos.	6,202	141,349,155	8,890,736	158,621,939	19,029,250	31,203,439	3,636,241	66,085,916	126,825,111	80.0	31,796,828	14,006,223	15,063,203	14,392,508
Staten Island Rapid Transit	May	29	183,378	53,657	241,499	38,664	37,497	1,692	122,731	232,450	96.3	9,049	33,168	—38,499	—18,686
	5 mos.	29	899,849	273,868	1,196,947	213,266	201,350	8,826	630,535	1,208,555	101.0	—11,608	170,771	—256,984	—256,002
Bangor & Aroostook	May	602	953,631	29,014	1,015,791	288,866	190,797	12,267	243,073	782,730	77.1	233,061	138,280	107,001	198,855
	5 mos.	602	7,669,746	173,313	7,999,637	1,309,693	933,409	59,531	1,825,355	4,367,579	54.6	3,632,058	1,596,836	1,905,196	1,826,341
Bessemer & Lake Erie	May	214	2,990,999	1,304	3,015,731	244,783	607,867	14,982	538,857	1,485,961	49.3	1,529,770	726,427	980,495	1,112,800
	5 mos.	214	8,889,534	5,674	8,998,094	973,549	2,947,110	86,104	2,200,459	6,580,125	73.1	2,417,969	1,451,387	1,853,612	2,072,702
Boston & Maine	May	1,757	5,336,282	1,017,312	6,923,497	1,089,089	1,110,106	102,212	2,899,062	5,501,210	79.5	1,422,287	625,763	503,288	684,610
	5 mos.	1,757	26,858,715	5,175,433	35,008,904	5,431,917	5,605,355	526,538	15,128,590	28,229,238	80.6	6,779,666	3,007,817	2,263,414	1,940,030
Burlington-Rock Island	May	228	422,177	47,117	488,468	61,784	37,445	4,432	167,998	292,681	59.9	195,787	9,311	109,459	76,349
	5 mos.	228	1,729,154	243,049	2,078,802	278,205	201,928	24,838	821,651	1,433,602	69.0	645,200	47,213	299,821	155,188
Cambria & Indiana	May	35	144,556	.....	144,598	14,320	78,598	947	26,580	130,232	90.1	14,366	56,158	69,749	46,053
	5 mos.	35	693,115	.....	693,327	72,965	375,603	4,491	127,556	626,869	90.4	66,458	252,291	317,808	105,917
Canadian Pacific Lines in Maine	May	234	331,006	38,792	397,149	135,804	75,627	7,303	169,103	400,501	100.8	—3,352	24,583	—83,115	—34,231
	5 mos.	234	2,921,448	203,270	3,251,059	454,713	465,166	35,421	1,175,578	2,198,500	67.6	1,052,559	127,788	543,792	384,784
Canadian Pacific Lines in Vermont	May	90	136,708	12,301	170,831	56,252	41,333	5,707	162,954	273,859	160.3	—103,028	13,687	—152,732	—93,591
	5 mos.	90	693,499	74,118	850,028	197,621	198,724	27,189	745,819	1,209,819	142.3	—359,791	66,211	—608,591	—585,377
Central of Georgia	May	1,815	2,402,085	208,137	2,853,031	502,119	455,555	100,786	1,395,357	2,627,627	92.1	225,404	208,979	6,059	275,628
	5 mos.	1,815	12,576,178	1,231,509	15,067,338	2,386,524	2,462,884	549,663	7,247,159	13,524,156	89.8	1,543,182	1,042,576	299,259	718,654
Central of New Jersey	May	415	2,532,664	539,059	3,249,980	580,047	570,187	51,395	1,554,869	2,941,226	90.5	308,754	384,800	—314,097	—200,440
	5 mos.	415	12,228,441	2,526,382	15,747,586	2,375,515	2,910,886	268,162	8,155,922	14,620,593	92.8	1,126,993	1,956,145	—2,191,881	—2,237,592
Central of Pennsylvania	May	212	1,600,366	15,584	1,649,871	222,646	267,615	23,476	462,346	1,018,831	61.8	631,040	58,629	824,811	888,298
	5 mos.	212	7,248,740	76,327	7,505,344	792,952	1,350,994	118,282	2,339,085	4,821,140	64.2	2,684,204	318,652	3,639,146	3,768,707
Central Vermont	May	422	705,000	48,000	801,000	160,759	150,077	15,171	321,384	683,780	85.4	117,220	60,865	11,988	197,621
	5 mos.	422	3,414,000	289,000	3,953,000	688,183	785,256	76,550	1,740,956	3,489,780	88.3	463,220	247,710	—2,395	266,332
Chesapeake & Ohio	May	5,104	27,180,456	852,266	29,363,838	3,736,883	5,682,728	524,898	9,295,663	20,322,649	69.2	9,041,189	4,106,167	4,999,125	5,664,189
	5 mos.	5,100	120,184,949	3,946,445	129,442,867	17,139,092	24,812,276	2,822,943	44,852,531	95,348,257	73.7	34,094,610	16,462,846	18,485,281	12,779,967
Chicago & Eastern Illinois	May	909	1,777,740	244,912	2,226,876	376,189	532,781	111,243	991,317	2,159,419	97.0	67,457	72,500	—91,505	140,550
	5 mos.	909	9,514,183	1,481,602	12,122,734	1,731,004	2,415,468	542,373	5,216,164	10,664,623	88.0	1,458,111	626,618	335,988	784,945
Chicago & Illinois Midland	May	131	755,902	884	770,120	84,340	143,261	24,017	198,292	486,222	63.1	283,898	109,316	156,735	249,154
	5 mos.	131	3,606,466	4,167	3,694,464	411,885	709,314	130,334	1,014,960	2,439,197	66.0	1,255,267	499,153	676,709	637,103
Chicago & North Western	May	8,076	10,548,750	1,759,417	13,804,323	2,502,132	3,082,476	309,000	6,593,521	13,222,001	95.8	582,322	1,042,270	—396,387	2,406,464
	5 mos.	8,076	52,660,415	8,236,485	68,172,323	11,883,380	15,797,164	1,534,170	35,234,495	68,282,695	100.2	—110,372	5,134,626	—5,372,483	—24,899
Chicago, Burlington & Quincy	May	8,714	13,858,648	1,308,252	16,836,384	3,963,576	3,278,720	483,847	6,289,245	14,711,362	87.4	2,125,022	1,023,971	888,806	2,513,766
	5 mos.	8,714	70,921,497	6,462,335	85,469,955	14,177,003	16,372,514	2,313,357	32,839,125	69,257,008	81.0	16,212,947	8,912,009	5,464,010	11,759,579
Chicago Great Western	May	1,500	2,338,071	17,608	2,508,806	579,359	295,327	101,926	887,444	1,942,244	77.4	566,562	172,296	155,421	318,820
	5 mos.	1,500	12,188,888	174,511	13,189,345	2,425,997	1,553,830	533,292	5,160,689	10,066,797	76.3	3,122,548	1,060,114	1,006,274	1,285,912
Chicago, Indianapolis & Louisville	May	541	1,246,292	98,701	1,436,457	257,366	274,937	80,112	578,831	1,284,733	89.4	151,724	78,566	—10,993	204,357
	5 mos.	541	6,435,150	471,626	7,370,353	1,249,382	1,315,295	399,557	2,944,930	6,365,576	86.4	1,004,777	392,383	224,318	772,907
Chicago, Milwaukee, St. Paul & Pacific	May	10,670	15,070,113	1,555,299	18,569,069	3,943,810	3,624,257	434,753	8,162,879	17,060,236	91.9	1,508,833	1,389,000	—227,610	1,159,941
	5 mos.	10,670	77,559,586	7,103,554	93,695,451	15,021,228	19,935,792	2,115,241	43,608,671	85,413,999	91.2	8,281,452	6,937,000	—644,179	2,181,404
Chicago, Rock Island & Pacific	May	7,620	11,849,121	1,532,379	14,403,598	2,184,686	2,746,437	460,087	5,432,752	11,531,130	80.1	2,872,468	1,347,896	844,987	1,308,670
	5 mos.	7,624	59,161,295	8,611,330	73,079,889	8,946,521	12,261,726	2,291,422	28,764,582	55,802,294	76.4	17,277,595	7,806,546	6,017,220	5,801,924
Chicago, St. Paul, Minn. & Omaha	May	1,617	1,862,249	204,443	2,273,913	425,580	446,457	53,132	1,152,077	2,189,749	96.3	84,164	162,084	—140,359	132,674
	5 mos.	1,617	10,267,515	922,863	12,143,302	1,873,758	2,342,839	282,696	6,469,221	11,557,846	95.2	585,456	891,680	—742,696	—482,007
Clinchfield	May	317	1,582,803	4,401	1,597,603	186,906	308,329	33,527	421,734	983,513	61.6	614,095	161,549	555,914	669,900
	5 mos.	317	7,285,981	21,582	7,367,972	859,282	1,478,946	168,193	2,109,691	4,767,972	64.7	2,600,004	784,203	2,113,037	2,787,738
Colorado & Southern	May	745	885,865	66,890	1,035,198	179,377	188,185	25,514	393,481	834,372	80.6	200,823	98,169	58,089	1,037
	5 mos.	745	4,530,854	354,310	5,291,876	705,197	1,006,451	125,599	2,193,891	4,280,959	80.9	1,010,918	501,278	294,041	306,186
Ft. Worth & Denver City	May	902	1,045,141	103,712	1,245,249	231,650	195,466	40,843	445,642	985,167	79.1	260,082	78,566	104,958	104,693
	5 mos.	902	4,695,787	571,040	5,733,591	987,837	901,245	210,028	2,211,723	4,667,228	81.4	1,066,363	359,967	467,516	483,633

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF MAY AND FIVE MONTHS OF CALENDAR YEAR 1949

Name of road		Av. mileage operated during period	Operating revenues			Operating Expenses						Net from railway operation	Railway tax accruals	Net railway operating income	
						Maintenance of									
			Freight	Passenger	Total (inc. misc.)	Way and structures	Equipment	Traffic	Transportation	Total	Operating ratio			1949	1948
Colorado & Wyoming	May	41	122,860	.....	203,044	16,846	26,396	1,144	89,178	143,026	70.4	60,018	33,141	25,832	52,284
	5 mos.	41	705,623	.....	1,151,247	63,960	121,028	4,814	446,267	679,624	59.0	471,623	238,658	233,143	257,152
Columbus & Greenville	May	168	150,072	29	155,607	38,852	27,177	5,001	45,284	137,072	88.1	18,535	14,700	6,269	—5,690
	5 mos.	168	768,518	35	799,594	175,918	133,992	22,699	224,911	643,689	80.5	155,905	94,955	74,676	96,603
Delaware & Hudson	May	794	4,261,538	138,091	4,505,667	756,891	977,517	75,958	1,750,641	3,730,048	82.8	775,619	408,884	337,112	654,920
	5 mos.	794	20,242,970	844,486	21,620,082	3,044,248	4,904,050	353,315	8,879,257	18,060,683	83.5	3,559,399	1,900,375	1,529,886	2,568,094
Delaware, Lackawanna & Western	May	969	6,043,054	816,128	7,412,488	1,049,350	1,333,838	158,588	3,107,507	5,884,938	79.4	1,527,550	750,359	742,333	981,172
	5 mos.	969	27,931,413	4,090,114	34,616,727	4,644,993	6,355,058	757,480	15,667,744	28,607,040	82.6	6,009,687	3,171,344	2,706,526	3,408,780
Denver & Rio Grande Western	May	2,440	4,702,709	240,387	5,162,392	968,573	1,045,982	178,525	1,905,812	4,354,296	84.3	808,096	415,353	453,237	1,347,219
	5 mos.	2,442	25,083,339	1,231,662	27,616,134	3,641,863	5,265,331	795,357	10,164,252	21,213,300	76.8	6,402,834	2,930,929	3,462,191	4,938,485
Detroit & Mackinac	May	232	138,381	720	148,696	31,500	23,517	2,062	31,960	96,412	64.8	52,284	21,569	28,659	47,191
	5 mos.	232	671,114	4,062	726,241	157,500	122,556	9,982	168,972	497,515	68.5	228,726	95,008	136,659	217,144
Detroit & Toledo Shore Line	May	50	478,152	.....	480,302	61,755	44,819	13,499	153,824	285,022	59.3	195,280	57,044	61,330	90,351
	5 mos.	50	2,813,806	.....	2,826,823	234,345	225,253	65,751	831,821	1,416,499	50.1	1,410,324	448,235	528,381	489,933
Detroit, Toledo & Ironton	May	464	770,556	698	831,734	153,737	208,516	22,875	282,447	703,501	84.6	128,233	Cr2,038	81,430	198,854
	5 mos.	464	6,619,157	2,981	6,853,846	787,073	1,127,444	124,053	1,715,916	3,943,751	57.5	2,910,095	1,103,769	1,532,537	1,251,758
Duluth, Missabe & Iron Range	May	575	5,351,102	6,588	6,276,969	577,594	564,832	8,876	1,337,625	2,550,981	40.6	3,725,988	975,032	2,752,295	2,709,354
	5 mos.	575	11,124,736	13,709	12,981,005	2,961,220	2,567,310	41,272	4,284,538	10,164,758	78.3	2,816,247	1,586,991	1,157,686	790,730
Duluth, Winnipeg & Pacific	May	175	247,000	3,500	253,900	47,683	40,235	4,117	112,061	209,821	82.6	44,079	21,512	—7,825	—13,842
	5 mos.	175	1,366,000	9,300	1,391,700	308,041	239,033	21,012	663,514	1,261,590	90.7	130,110	114,427	—143,733	129,424
Elgin, Joliet & Eastern	May	238	3,509,132	7	4,257,011	327,156	532,843	27,954	1,277,699	2,277,862	53.5	1,979,149	818,484	1,005,938	879,553
	5 mos.	238	17,198,922	18	20,533,560	1,323,109	2,898,865	141,419	6,805,018	11,726,112	57.1	8,807,448	3,363,591	3,897,281	2,623,897
Erie	May	2,231	11,288,965	638,609	12,790,335	2,108,090	2,448,656	348,871	5,171,644	10,759,384	84.1	2,030,951	1,000,595	707,652	1,545,485
	5 mos.	2,230	56,208,749	3,036,806	63,194,606	8,194,764	11,913,124	1,615,129	26,578,894	51,511,237	81.5	11,683,369	5,571,718	4,613,515	6,912,336
Florida East Coast	May	575	1,449,862	388,624	2,027,830	412,942	383,662	65,672	741,592	1,764,577	87.0	263,253	154,240	—31,872	134,420
	5 mos.	575	9,138,795	3,755,163	14,133,766	1,925,026	2,078,635	335,762	5,049,732	10,374,836	73.4	3,758,930	1,353,790	1,688,865	2,125,406
Georgia Railroad	May	326	592,171	22,937	658,427	109,269	98,659	28,807	319,701	586,468	89.1	71,959	35,051	49,543	138,982
	5 mos.	326	3,051,373	152,044	3,415,945	524,065	501,684	146,774	1,667,635	2,993,654	87.6	422,291	174,136	330,831	475,371
Georgia & Florida	May	408	190,710	34	193,530	69,403	41,642	15,522	93,700	231,639	119.7	—38,109	15,631	—64,891	—8,953
	5 mos.	408	1,109,184	993	1,126,296	383,222	184,754	77,804	500,011	1,203,767	106.9	—77,471	79,875	—232,252	—93,721
Grand Trunk Western	May	971	3,675,000	170,000	4,153,000	713,505	672,161	63,011	1,734,261	3,337,226	80.4	815,774	254,364	429,191	521,522
	5 mos.	971	17,272,000	867,000	19,551,000	3,099,840	3,489,201	318,545	8,853,795	16,525,927	84.5	3,025,073	1,207,149	1,366,948	639,213
Canadian Natl. Lines in New Eng.	May	172	116,000	4,000	170,000	75,307	31,611	2,842	117,901	243,847	143.4	—73,847	22,576	—120,682	—85,516
	5 mos.	172	715,000	30,500	878,000	294,730	253,641	14,334	630,736	1,255,910	143.0	—377,910	112,880	—641,324	—525,865
Great Northern	May	8,318	15,444,326	924,656	17,884,091	4,349,195	2,935,457	364,719	6,167,952	14,468,091	80.9	3,416,000	1,543,083	1,747,351	2,566,431
	5 mos.	8,318	66,491,384	4,257,663	76,901,375	16,194,771	15,263,464	1,773,342	31,602,011	67,946,271	88.4	8,955,104	7,036,266	566,416	4,844,535
Green Bay & Western	May	224	272,220	.....	276,242	85,759	30,672	19,445	88,321	236,362	85.6	39,880	21,561	5,641	16,860
	5 mos.	224	1,399,142	56	1,436,364	336,252	164,371	92,905	472,291	1,129,455	78.6	306,909	150,391	83,157	130,007
Gulf, Mobile & Ohio	May	2,901	5,033,036	395,542	5,861,701	1,034,778	1,053,224	227,205	1,907,131	4,518,990	77.1	1,342,711	554,800	563,634	805,380
	5 mos.	2,901	26,196,698	2,178,558	30,519,746	5,347,492	5,437,113	1,120,165	10,085,656	23,521,992	77.1	6,997,754	2,855,732	2,779,194	3,029,548
Illinois Central	May	6,544	16,581,949	2,099,588	20,952,444	3,956,066	3,877,530	472,703	7,604,424	16,828,037	80.3	4,124,407	2,277,333	1,763,126	2,981,102
	5 mos.	6,550	84,665,419	10,099,722	105,585,836	17,502,435	18,769,117	2,255,151	39,525,598	82,726,857	78.4	22,858,979	12,081,210	9,913,538	10,582,941
Illinois Terminal	May	474	723,085	110,848	936,372	150,728	132,769	38,072	378,889	747,855	79.9	188,517	97,553	86,803	143,289
	5 mos.	474	3,816,823	556,484	4,843,993	751,052	672,820	183,137	1,954,919	3,781,908	78.1	1,062,085	535,321	508,326	722,478
Kansas City Southern	May	891	3,005,550	98,416	3,357,386	290,803	432,034	100,227	984,831	1,935,919	57.7	1,421,467	485,000	741,204	851,336
	5 mos.	891	15,149,890	447,659	16,812,544	1,456,360	1,963,973	473,762	4,812,003	9,360,950	55.7	7,451,594	2,625,000	3,903,262	3,903,529
Kansas, Oklahoma & Gulf	May	328	474,421	718	477,743	65,602	35,061	17,457	123,704	262,800	55.0	214,943	93,847	97,585	74,277
	5 mos.	328	2,373,827	3,731	2,395,707	277,147	190,437	85,128	634,885	1,284,732	53.6	1,110,975	482,177	471,072	399,921
Lake Superior & Ishpeming	May	156	378,412	61	459,241	65,709	44,910	2,020	86,813	208,641	45.4	250,600	101,674	152,520	186,047
	5 mos.	156	938,856	240	1,112,102	222,773	253,513	9,402	322,040	854,535	76.8	257,567	197,981	80,718	58,787
Lehigh & Hudson River	May	96	256,086	.....	256,591	48,967	42,097	8,940	96,253	205,118	79.9	51,473	23,329	5,629	24,400
	5 mos.	96	1,206,710	.....	1,209,918	167,977	197,416	46,016	478,883	938,228	77.5	271,690	115,064	56,054	124,619
Lehigh & New England	May	191	759,700	.....	764,292	112,065	98,804	11,066	187,862	440,182	57.6	324,110	144,442	189,272	195,406
	5 mos.	191	2,848,198	.....	2,877,067	546,405	540,922	55,205	849,059	2,148,964	74.7	728,103	394,418	460,256	577,735
Lehigh Valley	May	1,252	5,531,677	307,219	6,116,631	928,185	1,099,424	144,394	2,613,678	5,027,543	82.2	1,089,088	423,713	515,089	708,660
	5 mos.	1,252	26,376,795	1,659,925	29,459,832	4,034,884	5,038,101	704,975	13,077,913	24,103,160	81.8	5,356,672	2,044,477	2,521,202	1,990,189
Louisiana & Arkansas	May	756	1,440,500	61,800	1,571,283	210,808	174,251	53,643	505,206	1,005,588	64.0	565,695	229,764	278,655	330,443
	5 mos.	756	7,067,511	302,783	7,689,650	1,003,760	907,979	257,808	2,495,322	4,946,399	64.3	2,743,251	1,071,147	1,308,299	1,349,921
Louisville & Nashville	May	4,775	14,247,423	1,000,465	16,106,366	2,328,100	3,597,792	326,077	6,573,117	13,369,726	83.0	2,736,640	1,904,229	1,569,658	1,700,968
	5 mos.	4,772	68,359,562	5,734,708	78,792,057	11,435,113	17,275,040	1,532,379	32,819,069	66,007,473	83.8	12,784,584	8,509,492	6,615,801	5,956,533

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF MAY AND FIVE MONTHS OF CALENDAR YEAR 1949

Name of road		Av. mileage operated during period	Operating revenues: Freight	Passenger	Total (inc. misc.)	Operating Expenses: Maintenance of Way and structures	Maintenance of Equipment	Traffic	Transportation	Total	Operating ratio	Net from railway operation	Railway tax accruals	Net railway operating income 1949	Net railway operating income 1948
Maine Central	May	981	1,677,711	143,047	1,956,553	396,761	445,997	15,144	671,292	1,594,696	81.5	361,857	195,602	144,896	252,921
	5 mos.	981	10,016,353	672,246	11,292,348	1,759,051	2,198,164	93,633	3,780,443	8,167,132	72.3	3,125,216	1,541,328	1,263,977	1,055,603
Midland Valley	May	334	126,691	15	129,036	46,699	16,686	3,808	53,646	127,400	98.7	1,636	Cr. 2,597	—6,095	21,653
	5 mos.	334	744,258	45	760,912	185,113	92,349	18,547	270,770	600,961	79.0	159,951	78,647	37,445	97,767
Minneapolis & St. Louis	May	1,421	1,402,819	11,166	1,469,934	351,051	258,356	104,979	499,453	1,307,950	89.0	161,984	109,468	33,965	107,203
	5 mos.	1,421	7,295,520	47,431	7,576,604	1,442,465	1,277,418	541,141	2,732,730	6,450,350	85.1	1,126,254	660,814	399,686	446,721
Minn., St. Paul & S. Ste. Marie	May	3,224	2,481,917	93,142	2,766,739	625,200	468,038	66,019	1,157,107	2,419,874	87.5	346,865	203,970	114,451	104,553
	5 mos.	3,224	11,078,065	396,928	12,254,018	2,756,285	2,515,900	316,903	5,863,189	11,960,985	97.6	293,033	938,067	—848,068	—1,334,342
Duluth, South Shore & Atlantic	May	530	402,578	13,428	441,483	96,667	91,757	17,638	197,798	414,180	93.8	27,303	24,310	—16,829	78,579
	5 mos.	530	2,132,982	49,559	2,290,658	482,768	488,211	90,860	1,034,149	2,151,042	93.9	139,616	117,473	—74,365	256,713
Spokane International	May	152	183,709	1 970	195,917	36,637	14,478	3,764	75,061	137,741	70.3	58,176	11,308	34,947	4,218
	5 mos.	152	743,761	6,541	809,179	208,836	88,463	20,012	335,189	696,622	86.1	112,557	55,500	—2,159	54,548
Mississippi Central	May	148	180,178	—44	184,684	58,845	23,031	12,456	41,615	144,966	78.5	39,718	15,360	10,014	35,289
	5 mos.	148	940,158	93	963,037	260,174	110,650	62,680	249,094	728,963	75.7	234,074	96,778	61,867	98,873
Missouri-Illinois	May	172	364,964	289	367,194	64,928	48,719	6,991	101,012	231,715	63.1	135,479	37,736	83,686	100,703
	5 mos.	172	1,778,558	1,010	1,789,649	302,955	236,188	35,337	484,873	1,091,334	61.0	698,315	259,738	405,925	406,475
Missouri-Kansas-Texas Lines	May	3,253	5,076,497	356,370	5,900,869	860,835	895,450	226,772	2,259,217	4,537,194	76.9	1,363,675	558,018	498,517	640,822
	5 mos.	3,253	27,027,083	1,815,719	31,115,305	4,681,122	4,517,947	1,104,860	12,281,302	24,011,468	77.2	7,103,837	2,756,079	2,369,453	2,410,225
Missouri Pacific	May	7,004	13,554,781	950,288	16,029,473	2,808,911	2,816,602	404,989	6,414,541	12,975,675	80.9	3,053,798	1,010,147	1,442,201	1,750,427
	5 mos.	7,006	70,875,927	4,878,897	82,908,329	12,710,127	14,506,467	2,068,443	33,261,052	65,458,024	79.0	17,450,305	5,959,110	8,557,669	7,829,104
Gulf Coast Lines	May	1,711	3,268,015	84,559	3,506,912	506,113	362,184	86,818	1,081,927	2,159,969	61.59	1,346,943	475,728	596,946	740,407
	5 mos.	1,714	16,093,705	463,235	17,375,525	2,972,790	2,060,433	407,349	5,756,489	11,812,320	67.98	5,363,205	1,691,129	2,648,522	4,103,415
International-Great Northern	May	1,110	2,286,715	159,041	2,692,073	416,146	373,001	51,694	1,152,936	2,096,916	77.9	595,157	105,122	375,361	—9,487
	5 mos.	1,110	10,957,549	813,228	13,078,361	2,245,475	2,018,674	262,104	5,702,883	10,761,314	82.3	2,317,047	558,202	1,060,679	50,790
Monongahela	May	170	732,309	916	736,242	92,742	73,308	1,393	218,661	399,838	54.3	336,404	10,214	195,520	225,706
	5 mos.	170	3,228,987	5,076	3,256,299	422,268	349,271	5,283	1,050,070	1,862,262	57.2	1,394,037	379,862	397,706	429,891
Montour	May	51	323,903	.....	324,125	29,690	87,644	840	91,688	221,552	68.4	102,573	65,134	78,378	86,636
	5 mos.	51	1,302,931	.....	1,308,546	102,166	398,449	4,204	413,144	973,214	74.4	335,332	277,204	323,493	310,351
Nashville, Chatt. & St. Louis	May	1,051	2,309,400	159,959	2,702,558	415,653	414,436	110,445	1,184,365	2,247,209	83.2	455,349	241,995	202,894	240,064
	5 mos.	1,051	11,523,675	929,771	13,723,105	2,174,020	1,798,497	534,422	5,751,441	10,849,418	79.1	2,873,687	1,477,683	1,338,318	1,077,580
New York Central	May	10,731	42,925,876	9,318,315	58,350,689	9,032,549	13,160,009	1,020,699	26,155,164	52,260,147	89.6	6,090,542	3,988,785	720,006	3,678,061
	5 mos.	10,731	219,543,063	48,179,333	297,858,651	39,048,135	61,792,181	5,077,225	136,209,734	257,673,448	86.5	40,185,203	22,105,480	10,937,636	2,809,318
Pittsburgh & Lake Erie	May	221	3,741,585	79,038	3,953,908	469,746	1,086,176	68,299	1,307,004	3,108,573	78.6	845,335	526,458	843,517	940,305
	5 mos.	221	17,848,768	411,483	19,076,664	2,198,171	5,026,223	334,460	6,580,835	15,085,801	79.1	3,990,863	2,870,033	4,026,711	3,434,558
New York, Chicago & St. Louis	May	1,687	8,098,629	112,752	8,405,986	1,104,925	1,402,845	217,625	2,839,987	5,888,248	70.1	2,517,738	1,017,454	1,228,525	1,525,137
	5 mos.	1,687	41,088,235	609,514	42,671,148	5,535,259	6,866,324	1,094,245	14,979,255	30,008,118	70.3	12,663,030	4,994,711	6,010,029	6,156,254
New York, New Haven & Hartford	May	1,798	7,106,953	4,001,506	12,252,962	1,770,039	1,854,999	242,162	4,954,288	9,548,684	77.9	2,704,278	1,076,000	877,565	1,626,567
	5 mos.	1,798	36,439,163	20,190,020	62,653,513	8,948,965	9,176,254	1,223,038	26,439,641	49,775,422	79.4	12,878,091	5,187,000	4,024,178	2,162,393
New York Connecting	May	21	192,380	.....	202,823	85,627	18,620	.....	56,608	163,753	80.7	39,070	60,295	—7,162	89,259
	5 mos.	21	1,095,476	.....	1,157,583	342,309	120,815	.....	296,091	771,657	66.7	385,926	312,016	174,589	243,241
New York, Ontario & Western	May	544	498,124	6,468	550,938	93,161	81,305	28,923	268,794	504,272	91.5	46,666	37,865	—60,339	—66,479
	5 mos.	544	2,365,793	15,235	2,595,414	454,912	433,749	149,310	1,307,110	2,506,282	96.6	89,132	181,461	—395,754	—730,489
New York, Susquehanna & Western	May	120	312,749	39,954	361,490	47,602	56,775	6,285	162,536	294,346	81.4	67,144	29,908	10,381	73,382
	5 mos.	120	1,659,273	212,622	1,932,247	240,065	273,097	31,705	876,506	1,556,335	80.5	375,912	154,394	80,285	110,795
Norfolk & Western	May	2,129	14,860,220	427,717	15,885,998	2,047,123	3,824,140	298,520	4,574,277	11,297,146	71.1	4,588,852	2,464,434	2,881,576	4,427,480
	5 mos.	2,129	67,046,536	2,350,285	72,484,155	9,652,235	16,159,278	1,367,889	22,384,438	52,310,877	72.2	20,173,278	11,382,688	12,476,538	13,554,286
Norfolk Southern	May	683	675,925	.....	696,899	156,897	93,738	45,966	235,183	592,952	85.1	103,947	43,157	41,683	59,562
	5 mos.	683	3,493,501	2,594	3,616,823	687,830	454,864	218,730	1,209,078	2,870,288	79.4	746,535	395,087	249,060	250,294
Northern Pacific	May	6,889	10,604,519	612,435	12,149,180	2,485,255	2,497,206	282,275	4,533,689	10,426,247	85.8	1,722,933	1,170,449	873,149	1,548,299
	5 mos.	6,889	49,239,366	2,738,296	56,481,963	11,885,925	12,521,775	1,331,547	23,423,630	52,262,199	92.5	4,219,464	5,690,886	—131,461	4,434,183
Northwestern Pacific	May	331	681,408	1,462	705,189	183,407	88,908	5,192	336,060	626,827	88.9	78,362	37,724	—21,259	56,591
	5 mos.	331	2,938,092	20,608	3,075,294	911,637	427,005	23,417	1,572,183	3,001,430	97.6	73,864	183,835	—328,178	18,923
Oklahoma City-Ada-Atoka	May	132	79,073	.....	80,112	23,954	3,145	1,637	25,838	58,281	72.7	21,831	7,000	5,503	9,144
	5 mos.	132	423,414	—19	427,623	97,276	21,737	7,817	111,080	256,445	60.0	171,178	65,261	50,270	38,084
Pennsylvania	May	10,142	59,194,558	11,771,134	77,974,103	10,488,556	17,113,301	1,282,895	33,349,851	65,033,778	83.4	12,940,325	5,876,710	5,210,287	6,236,417
	5 mos.	10,142	287,699,544	64,319,146	385,921,829	47,598,305	83,702,461	6,311,278	172,198,738	324,772,601	84.2	61,149,228	32,210,014	20,644,897	6,583,455
Long Island	May	376	1,134,681	3,025,938	4,350,170	479,741	670,449	13,928	2,230,455	3,503,182	80.5	846,988	449,181	155,599	—306,556
	5 mos.	376	5,496,082	13,022,844	19,461,650	2,799,654	3,854,240	180,217	11,363,336	19,171,335	98.5	290,315	2,296,881	—3,321,953	—3,792,100

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF MAY AND FIVE MONTHS OF CALENDAR YEAR 1949

Name of road		Av. mileage operated during period	Operating revenues			Operating Expenses						Net from railway operation	Railway tax accruals	Net railway operating income	
						Maintenance of									
			Freight	Passenger	Total (inc. misc.)	Way and structures	Equipment	Traffic	Transportation	Total	Operating ratio			1949	1948
Pennsylvania-Reading Seashore Lines	May	386	484,406	215,618	721,257	229,384	197,727	11,637	548,741	1,012,418	140.4	—291,161	90,667	—506,714	—308,637
	5 mos.	386	2,389,112	881,448	3,390,665	1,059,101	973,101	52,413	2,788,365	5,028,278	148.3	—1,637,613	449,771	—2,660,096	—1,853,320
Pittsburg & Shawmut	May	97	240,377	.....	241,284	54,231	41,687	2,816	61,300	169,256	70.1	72,028	30,709	34,251	59,251
	5 mos.	97	962,395	.....	967,169	172,680	203,759	18,691	276,249	715,123	73.9	252,046	97,603	158,980	194,950
Pittsburgh & West Virginia	May	135	621,863	.....	638,069	150,133	157,161	43,185	180,304	566,818	88.8	71,251	57,411	81,902	169,911
	5 mos.	135	3,382,810	.....	3,484,401	663,795	698,900	209,892	900,555	2,643,880	75.9	840,521	434,257	623,621	725,094
Reading	May	1,324	9,268,977	640,584	10,386,089	1,810,605	2,023,055	141,257	4,007,831	8,299,014	79.9	2,087,075	1,018,408	1,076,450	1,382,907
	5 mos.	1,325	43,868,099	3,327,060	49,767,581	8,180,321	9,994,092	663,207	20,162,949	40,580,714	81.5	9,186,867	4,617,064	4,251,184	4,606,934
Richmond, Fredericksburg & Potomac	May	118	1,285,813	459,863	1,974,707	276,697	310,040	21,244	787,841	1,526,849	77.3	447,858	214,804	134,885	201,602
	5 mos	118	6,446,067	2,898,678	10,458,856	1,687,895	1,677,551	109,255	4,529,24)	8,685,547	83.0	1,773,309	909,400	388,699	1,190,386
Rutland	May	407	373,462	26,147	476,628	74,845	74,870	14,145	241,701	423,252	88.8	53,376	26,911	9,177	23,315
	5 mos.	407	1,740,717	148,745	2,261,330	436,714	480,045	74,024	1,292,691	2,372,799	104.9	—111,469	150,172	—347,882	—58,736
Sacramento Northern	May	271	143,618	.....	147,606	72,286	16,849	2,327	69,354	169,929	115.1	—22,323	12,358	—45,481	—45,646
	5 mos.	271	728,663	.....	755,294	441,801	99,951	10,607	328,608	925,615	122.6	—170,321	64,528	—288,288	—268,983
St. Louis-San Francisco	May	4,644	7,110,169	531,151	8,260,590	1,548,432	1,540,681	232,639	3,407,884	7,119,657	86.2	1,140,933	653,674	468,156	667,444
	5 mos.	4,645	36,633,038	2,842,673	42,604,703	7,502,828	7,529,172	1,200,760	17,858,359	36,114,394	84.8	6,490,309	3,544,269	2,958,806	3,221,939
St. Louis, San Francisco & Texas	May	159	350,489	6,577	375,078	91,488	35,421	16,183	150,634	304,079	81.1	70,999	15,983	4,154	33,516
	5 mos.	159	1,707,641	54,093	1,854,347	291,202	166,322	82,272	801,623	1,393,677	75.2	460,670	127,945	141,566	147,612
St. Louis Southwestern	May	1,569	4,265,461	62,280	4,500,813	793,682	644,781	144,687	1,504,584	3,259,555	72.4	1,241,258	544,245	524,803	780,298
	5 mos.	1,569	23,806,791	293,864	24,961,295	3,215,457	3,382,495	709,149	8,286,854	16,455,886	65.9	8,505,409	3,497,191	3,923,256	4,836,727
Seaboard Air Line	May	4,151	8,556,174	1,003,749	10,244,470	1,739,889	1,911,023	318,490	3,891,103	8,326,197	81.3	1,918,273	960,617	812,266	1,203,903
	5 mos.	4,153	45,397,807	7,584,622	56,874,891	9,368,367	10,130,303	1,633,530	21,638,571	45,493,617	80.0	11,381,274	5,271,615	4,930,425	5,892,432
Southern Ry	May	6,411	14,678,591	1,503,625	17,571,900	2,558,622	3,225,188	373,138	7,074,012	13,930,120	79.3	3,641,780	1,736,959	1,749,481	2,598,976
	5 mos.	6,411	76,513,942	7,453,422	90,610,622	13,786,493	17,410,758	1,835,327	35,774,767	72,667,515	80.2	17,943,107	8,451,813	8,149,861	11,600,593
Alabama Great Southern	May	316	1,157,854	94,855	1,366,708	186,290	302,475	30,663	483,061	1,054,593	77.2	312,115	169,808	134,387	245,653
	5 mos.	316	5,770,848	490,779	6,771,209	1,022,317	1,432,976	150,814	2,392,085	5,272,180	77.9	1,499,029	894,911	722,953	975,730
Cinn., New Orleans & Texas Pacific	May	337	2,861,110	234,747	3,256,894	396,871	500,649	64,125	1,001,798	2,048,840	62.9	1,208,054	583,282	660,246	755,505
	5 mos.	337	14,083,712	1,033,784	15,953,415	2,042,961	2,908,211	299,762	4,895,842	10,687,693	67.0	5,265,722	2,608,099	2,925,278	3,353,457
Georgia Southern & Florida	May	397	449,315	109,777	603,261	144,616	76,402	7,174	186,248	428,567	61.0	174,694	47,252	50,426	56,266
	5 mos.	397	2,422,008	470,746	3,180,792	712,615	300,351	36,636	1,075,844	2,210,818	69.5	696,974	273,433	288,081	240,736
New Orleans & Northeastern	May	204	749,102	55,777	853,508	180,205	63,468	18,071	223,755	523,727	61.4	329,781	153,262	129,354	230,930
	5 mos.	204	3,698,959	285,458	4,231,736	747,626	416,981	94,373	1,031,983	2,489,999	58.8	1,741,737	778,664	724,672	1,008,182
Southern Pacific	May	8,171	28,896,391	3,036,245	34,441,691	4,487,803	7,145,797	734,367	14,792,040	29,019,813	84.3	5,421,878	2,707,165	1,413,069	1,567,979
	5 mos.	8,172	135,271,026	16,331,066	163,543,695	22,370,198	34;068,287	3,618,914	70,161,273	139,834,284	85.5	23,709,411	13,529,616	6,311,171	12,724,538
Texas & New Orleans	May	4,316	8,267,906	655,428	9,525,163	1,518,396	1,406,180	237,263	3,606,141	7,207,918	75.7	2,317,250	1,012,223	857,632	1,260,162
	5 mos.	4,316	41,597,632	3,566,953	48,220,164	7,535,603	7,214,735	1,099,535	18,838,260	37,075,800	76.9	11,144,364	4,825,144	4,050,229	6,232,383
Spokane, Portland & Seattle	May	945	1,788,160	70,923	1,977,435	570,490	227,013	19,440	670,953	1,563,615	79.1	413,820	146,225	182,251	401,348
	5 mos.	945	8,428,211	415,620	9,407,556	2,045,744	1,157,586	109,516	3,591,577	7,342,095	78.0	2,065,461	781,393	785,683	658,275
Tennessee Central	May	286	329,923	1,905	349,454	69,628	54,633	9,751	129,036	279,973	80.1	69,481	25,905	22,459	130,677
	5 mos.	286	1,781,422	13,437	1,892,994	329,383	273,990	49,270	784,877	1,525,852	80.6	367,142	132,351	109,809	—39,324
Texas & Northern	May	8	87,577	.....	104,173	4,537	9,546	195	29,192	49,091	47.1	55,082	16,209	21,387	.....
	5 mos.	8	467,197	.....	545,463	24,279	40,555	2,011	147,906	245,267	45.0	300,196	97,598	136,135	.....
Texas & Pacific	May	1,854	4,320,165	378,411	5,167,256	745,945	836,141	168,486	1,930,887	3,971,025	76.8	1,196,231	455,769	556,334	728,258
	5 mos.	1,854	22,420,231	2,068,895	26,606,798	3,620,245	4,211,266	833,151	10,702,448	20,839,891	78.3	5,766,907	1,922,117	2,706,926	3,153,920
Texas-Mexican	May	162	207,059	.....	231,855	50,756	23,778	6,453	64,449	159,366	68.7	72,489	37,548	15,743	15,768
	5 mos.	162	1,195,316	.....	1,318,912	241,716	125,439	29,983	356,539	826,770	62.7	492,142	193,080	204,332	176,920
Toledo, Peoria & Western	May	239	380,517	47	387,559	87,754	25,936	37,827	101,991	276,553	71.4	111,006	44,674	44,006	46,203
	5 mos.	239	1,919,966	118	1,948,756	346,067	131,803	168,203	508,047	1,276,775	65.5	671,981	267,554	294,405	273,974
Union Pacific	May	9,726	26,315,157	2,707,332	31,757,314	6,605,978	6,125,076	816,264	11,360,367	26,772,157	84.3	4,985,157	3,353,549	481,710	1,378,752
	5 mos.	9,727	122,594,753	11,473,616	147,088,619	26,700,600	29,714,668	4,040,466	59,844,707	129,807,537	88.3	17,281,082	14,481,491	—2,086,772	8,670,398
Utah	May	111	96,572	.....	96,616	27,128	56,148	592	47,126	138,375	143.2	—41,759	13,140	—47,028	33,090
	5 mos.	111	786,548	.....	783,055	151,330	268,202	3,563	375,231	836,716	106.2	—48,661	67,449	—99,706	—36,856
Virginian	May	663	3,489,576	4,206	3,614,035	457,066	857,615	43,006	758,037	2,190,462	60.6	1,423,573	654,000	958,748	1,115,481
	5 mos.	663	15,310,628	19,976	15,881,816	1,963,049	3,976,869	202,758	3,662,560	10,197,825	64.2	5,683,991	2,631,500	3,714,784	2,755,411
Wabash	May	2,393	6,294,454	383,625	7,558,618	1,254,154	1,085,500	253,290	3,219,602	6,154,477	81.4	1,404,141	444,231	643,512	866,304
	5 mos.	2,393	31,902,073	1,905,175	36,749,394	5,678,586	5,567,443	1,287,144	16,301,700	30,385,820	82.7	6,363,574	2,646,770	2,153,319	4,720,569
Ann Arbor	May	294	620,644	2,938	637,082	93,742	103,038	17,091	266,890	495,627	77.8	141,455	66,594	57,898	79,233
	5 mos.	294	3,107,630	12,840	3,174,615	414,987	555,842	109,872	1,442,959	2,600,378	81.9	574,237	278,166	230,891	263,650
Western Maryland	May	836	3,594,599	9,672	3,705,986	530,829	802,782	70,153	1,091,227	2,629,613	71.0	1,076,373	543,000	663,095	920,551
	5 mos.	836	18,108,327	49,469	18,911,138	2,434,391	3,758,611	357,579	5,651,727	12,934,733	68.2	6,016,405	2,888,000	3,561,436	3,154,021
Western Pacific	May	1,195	3,474,276	241,768	3,825,601	682,176	606,165	187,288	1,274,559	2,952,301	77.4	863,300	373,916	394,697	501,286
	5 mos.	1,195	15,062,231	1,088,618	16,611,671	2,697,690	2,924,524	828,715	6,209,883	13,760,509	82.8	2,851,162	1,318,630	1,239,753	1,525,904
Wheeling & Lake Erie	May	506	2,914,841	.....	3,094,966	492,426	496,512	63,334	914,748	2,048,751	66.2	1,046,215	588,219	683,074	847,370
	5 mos.	506	13,900,191	11	14,526,301	1,910,262	2,378,984	329,704	4,387,786	9,432,825	64.9	5,093,476	2,748,178	3,338,161	3,149,807
Wisconsin Central	May	1,051	2,150,797	56,019	2,349,077	356,125	306,531	62,143	934,352	1,743,490	74.2	605,587	137,779	345,144	389,413
	5 mos.	1,051	10,367,633	202,763	11,169,146	1,480,204	1,750,932	299,972	4,960,048	8,912,710	79.8	2,256,436	698,570	909,968	1,342,575

Freight Operating Statistics of Large Steam Railways — Selected

	Region, road and year		Miles of road operated	Locomotive-miles: Train-miles	Locomotive-miles: Principal and helper	Locomotive-miles: Light	Car-miles: Loaded (*thousands*)	Car-miles: Per cent loaded	Ton-miles (*thousands*): Gross excl.locos. & tenders	Ton-miles (*thousands*): Net rev. and non-rev.	Road-locos. on lines: Serviceable: Unstored	Road-locos. on lines: Serviceable: Stored	Road-locos. on lines: B.O.	Road-locos. on lines: Per cent B.O.
New Eng. Region	Boston & Maine	1949	1,746	282,556	294,507	15,874	11,412	67.7	713,365	288,334	102	13	12	9.4
		1948	1,746	295,826	304,238	14,055	12,024	70.8	737,407	310,177	95	4	17	14.7
	N. Y., N. H. & Htfd	1949	1,774	276,493	278,141	20,341	11,619	68.1	703,591	304,537	111	10	14	10.4
		1948	1,815	335,311	338,705	27,219	13,686	72.3	803,281	359,276	142	16	31	16.4
Great Lakes Region	Delaware & Hudson	1949	794	250,219	299,859	31,690	11,080	68.7	760,139	389,332	121	55	23	11.6
		1948	794	259,997	311,485	31,180	11,483	70.5	781,248	410,254	125	37	24	12.9
	Del., Lack. & Western	1949	967	282,079	319,533	33,281	12,337	66.8	827,644	374,135	105	23	16	11.1
		1948	970	298,575	332,228	36,049	13,383	70.0	869,217	395,634	100	25	23	15.5
	Erie	1949	2,231	583,550	602,462	40,989	30,562	66.9	1,927,926	794,157	195	71	33	11.0
		1948	2,229	646,568	680,021	52,033	34,743	67.1	2,227,018	941,295	247	54	74	19.7
	Grand Trunk Western	1949	971	237,099	242,713	2,286	8,024	64.5	529,577	218,425	57	4	6	9.0
		1948	972	249,732	252,764	2,178	8,739	67.4	551,553	230,207	65	..	10	13.3
	Lehigh Valley	1949	1,239	244,941	265,089	28,674	11,416	66.0	791,784	369,908	70	18	20	18.5
		1948	1,239	259,811	289,923	43,759	12,632	69.8	844,747	410,329	104	3	32	23.0
	New York Central	1949	10,689	3,035,344	3,240,456	196,984	107,179	61.6	7,548,740	3,446,349	1,001	146	298	20.6
		1948	10,704	2,791,117	2,989,295	198,146	108,687	65.1	7,192,185	3,241,173	1,071	114	312	20.8
	New York, Chic. & St. L.	1949	1,656	554,681	560,544	5,211	22,246	64.4	1,480,384	610,587	135	29	15	8.4
		1948	1,656	560,674	572,100	7,330	24,523	70.7	1,505,862	656,663	137	12	19	11.3
	Pitts. & Lake Erie	1949	221	90,340	92,972	100	3,878	67.1	333,704	202,500	34	1	14	28.6
		1948	223	69,410	69,682	....	3,326	71.1	273,784	167,651	34	1	11	23.9
	Wabash	1949	2,381	561,855	569,423	9,413	19,572	68.5	1,241,730	520,257	156	16	33	16.1
		1948	2,381	575,378	584,053	13,587	21,865	70.6	1,376,042	595,818	148	18	37	18.2
Central Eastern Region	Baltimore & Ohio	1949	6,086	1,847,691	2,253,266	247,996	66,725	62.4	5,051,084	2,521,832	765	57	266	24.4
		1948	6,076	1,684,924	2,075,858	240,655	63,054	66.9	4,454,433	2,197,479	828	9	310	27.0
	Central of New Jersey*	1949	415	65,890	66,110	5,585	2,583	66.2	188,426	97,178	34	5	7	15.2
		1948	418	75,746	78,789	6,582	3,062	68.9	218,252	118,731	50	1	13	20.3
	Central of Pennsylvania	1949	212	68,804	74,614	10,891	2,614	66.6	192,232	101,926	30	5	14	28.6
		1948	213	73,215	83,180	14,397	2,902	68.4	208,909	112,075	44	3	12	20.3
	Chicago & Eastern Ill.	1949	909	121,650	121,868	2,521	4,449	68.6	291,232	137,839	32	22	7	11.5
		1948	909	153,401	154,392	3,088	5,082	69.4	337,228	160,254	51	..	19	27.1
	Elgin, Joliet & Eastern	1949	238	94,561	95,044	....	3,456	65.1	269,470	144,966	38	2	3	7.0
		1948	391	101,388	105,253	3,265	3,441	68.9	259,286	141,674	44	5	2	3.9
	Pennsylvania System	1949	10,039	3,189,456	3,557,943	413,654	129,900	61.9	9,569,907	4,560,444	1,479	98	333	17.4
		1948	10,023	2,989,347	3,389,132	460,666	129,919	66.5	8,849,697	4,207,826	1,798	53	286	13.4
	Reading	1949	1,323	373,068	390,543	29,319	14,027	63.9	1,097,041	589,804	167	49	29	11.8
		1948	1,350	398,216	425,151	43,391	14,709	67.6	1,095,415	599,438	212	13	37	14.1
	Western Maryland	1949	837	188,659	235,739	35,236	6,844	62.5	569,108	316,973	152	14	10	5.7
		1948	837	167,394	196,385	28,320	5,819	66.3	457,635	253,424	155	2	13	7.6
Pocahontas Region	Chesapeake & Ohio	1949	5,031	1,483,379	1,582,366	72,341	66,801	57.2	5,730,377	3,182,379	554	24	124	17.7
		1948	5,003	1,123,239	1,196,450	52,521	49,466	64.3	3,776,336	2,106,965	582	15	95	13.7
	Norfolk & Western	1949	2,107	765,714	815,022	57,467	36,210	57.6	3,221,596	1,772,176	266	40	24	7.3
		1948	2,107	586,783	633,067	48,265	27,339	61.5	2,253,157	1,222,659	269	28	29	8.9
Southern Region	Atlantic Coast Line	1949	5,542	939,033	948,970	14,302	24,240	59.8	1,672,537	700,833	374	16	81	17.2
		1948	5,552	985,629	1,003,418	17,234	27,172	62.9	1,819,150	792,435	359	..	79	18.0
	Central of Georgia	1949	1,783	276,023	279,893	3,608	6,753	69.1	446,700	204,842	103	3	6	5.4
		1948	1,783	296,856	304,431	5,413	7,908	74.6	506,240	248,043	88	5	10	9.7
	Gulf, Mobile & Ohio	1949	2,854	302,967	302,967	213	14,049	70.8	912,514	424,835	79	27	3	2.8
		1948	2,847	336,736	338,874	494	16,102	72.8	1,033,324	499,280	118	12	18	12.2
	Illinois Central	1949	6,552	1,377,305	1,380,903	48,618	47,750	61.7	3,405,869	1,571,581	568	15	79	11.9
		1948	6,581	1,264,798	1,274,831	43,797	50,741	67.5	3,466,766	1,677,983	568	9	80	12.2
	Louisville & Nashville	1949	4,765	1,264,590	1,373,976	36,457	34,247	60.6	2,567,606	1,295,833	384	30	63	13.2
		1948	4,750	1,265,832	1,372,802	38,967	34,003	69.3	2,338,242	1,219,747	404	4	70	14.7
	Nash., Chatt. & St. Louis	1949	1,051	223,483	228,887	4,356	6,287	71.2	404,571	187,558	74	..	1	1.3
		1948	1,051	249,478	261,867	7,406	6,521	78.9	402,729	195,690	79	..	14	15.1
	Seaboard Air Line	1949	4,142	806,359	858,146	12,464	23,477	58.8	1,711,287	699,054	268	..	40	13.0
		1948	4,141	811,164	863,552	10,757	25,690	66.0	1,745,982	773,474	289	10	51	14.6
	Southern	1949	6,382	1,370,729	1,380,530	17,759	38,741	63.8	2,574,570	1,108,809	400	87	146	23.1
		1948	6,449	1,532,936	1,555,143	24,107	43,068	70.5	2,677,270	1,198,780	563	25	97	14.2
Northwestern Region	Chicago & North Western	1949	8,073	854,843	882,195	20,217	27,279	63.5	1,927,596	832,010	333	57	87	18.2
		1948	8,055	924,003	971,623	22,020	32,606	66.8	2,193,761	994,483	357	30	101	20.7
	Chicago Great Western	1949	1,445	160,019	160,651	7,492	7,669	65.3	506,911	214,467	53	..	11	17.2
		1948	1,445	201,871	201,871	10,511	8,601	68.8	553,031	246,006	46	6	22	29.7
	Chic., Milw., St. P. & Pac.	1949	10,663	1,246,813	1,290,674	46,784	41,348	64.5	2,818,649	1,248,968	437	87	75	12.5
		1948	10,663	1,263,390	1,314,891	51,614	42,554	66.3	2,818,026	1,248,521	458	71	85	13.8
	Chic., St. P., Minn. & Omaha	1949	1,606	164,136	167,743	6,326	4,347	67.7	285,308	124,592	64	16	37	31.6
		1948	1,606	187,172	199,270	12,114	5,145	69.4	339,129	148,599	69	1	41	36.9
	Duluth, Missabe & Iron Range	1949	575	138,053	138,922	1,348	7,161	50.8	707,057	420,963	40	..	1	2.4
		1948	569	140,593	141,251	1,122	7,111	51.6	660,336	397,083	42	..	2	4.5
	Great Northern	1949	8,222	915,541	913,966	39,132	38,518	65.6	2,842,693	1,414,486	333	67	53	11.7
		1948	8,237	945,006	941,968	36,758	38,571	67.7	2,721,211	1,333,365	337	75	64	13.4
	Minneap., St.P. & S. Ste. M.	1949	4,179	394,050	403,443	7,031	11,913	64.4	806,610	372,394	115	..	19	14.2
		1948	4,180	386,296	396,663	9,943	12,015	67.8	795,305	377,683	126	..	21	14.3
	Northern Pacific	1949	6,593	732,855	769,381	36,789	28,659	69.0	1,962,127	913,390	307	40	57	14.1
		1948	6,613	756,271	790,628	44,194	29,710	72.3	1,959,741	942,812	308	60	49	11.8
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1949	13,103	2,441,215	2,575,585	100,684	92,166	63.9	6,273,783	2,435,541	647	166	118	12.7
		1948	13,081	2,927,775	3,085,622	134,231	106,014	64.0	7,202,783	2,823,841	724	92	141	14.7
	Chic., Burl. & Quincy	1949	8,680	1,051,118	1,055,842	33,959	41,416	65.0	2,823,791	1,259,546	345	86	116	21.2
		1948	8,670	1,128,053	1,149,584	35,990	48,220	66.2	3,236,162	1,471,657	419	36	95	17.3
	Chic., Rock I. & Pac.	1949	7,589	1,116,533	1,155,570	13,734	35,778	59.8	2,482,781	1,024,419	267	36	58	16.1
		1948	7,618	1,149,913	1,184,050	13,633	39,371	62.7	2,653,968	1,126,541	294	19	69	18.1
	Denver & R. G. Wn.	1949	2,440	313,459	344,017	40,759	11,492	71.2	787,209	390,631	123	37	45	22.0
		1948	2,443	287,513	322,954	38,213	10,888	75.1	727,911	368,313	146	40	39	17.3
	Southern Pacific	1949	8,089	1,829,017	1,996,791	308,033	76,437	64.1	5,226,304	2,098,454	710	36	168	18.4
		1948	8,106	1,943,192	2,154,531	354,578	79,932	65.3	5,404,096	2,190,479	684	29	184	20.5
	Union Pacific	1949	9,727	1,891,895	1,956,858	137,575	77,459	64.9	5,347,962	2,305,076	481	145	181	22.4
		1948	9,751	1,898,023	1,983,201	164,008	79,860	66.0	5,404,851	2,328,095	487	185	96	12.5
	Western Pacific	1949	1,192	198,943	214,598	19,808	8,477	73.2	535,877	243,588	59	45	21	16.8
		1948	1,192	190,529	204,009	15,408	8,192	76.8	494,953	227,372	58	46	17	14.0
Southwestern Region	International-Gt. Northern*	1949	1,110	216,745	217,921	1,562	6,684	62.1	466,702	195,412	70	3	5	6.4
		1948	1,110	301,634	302,814	1,127	7,856	62.4	544,485	225,754	78	..	3	3.7
	Kansas City Southern	1949	886	184,909	188,721	1,978	8,569	63.8	616,557	289,467	45	4	5	9.3
		1948	885	181,622	182,013	802	8,791	68.2	599,534	283,378	40	11	5	8.9
	Mo.-Kans.-Texas Lines	1949	3,241	428,257	434,635	7,123	13,748	62.9	925,693	401,858	101	17	35	22.9
		1948	3,241	493,155	502,300	8,433	16,381	63.9	1,071,363	463,199	113	10	30	19.6
	Missouri Pacific*	1949	6,987	1,239,252	1,266,478	23,918	41,854	63.5	2,869,720	1,238,343	371	34	56	12.1
		1948	6,986	1,389,010	1,430,488	29,383	50,675	64.1	3,409,436	1,452,381	428	..	55	11.4
	Texas & Pacific	1949	1,852	338,716	338,716	8,409	11,945	62.2	819,567	309,755	110	16	6	4.5
		1948	1,852	571,895	571,895	13,974	17,030	58.8	1,232,035	483,999	120	..	12	9.1
	St. Louis-San Francisco	1949	4,614	680,499	688,424	7,759	21,076	62.1	1,463,586	638,724	248	38	56	16.4
		1948	4,615	852,413	882,756	10,991	22,831	66.4	1,530,092	681,866	298	5	31	9.3
	St. Louis Southw. Lines	1949	1,562	344,089	345,080	4,709	13,265	68.1	837,203	374,242	81	11	13	12.4
		1948	1,568	402,112	402,792	5,469	15,363	71.7	945,342	422,582	85	7	15	14.0
	Texas & New Orleans	1949	4,314	744,607	744,613	13,452	22,684	65.4	1,554,245	668,324	207	4	42	16.6
		1948	4,314	928,733	929,189	17,461	26,125	68.8	1,728,584	757,327	220	..	28	11.3

Items for the Month of April 1949 Compared with April 1948

	Region, road and year		Freight cars on line: Home	Foreign	Total	Per Cent. B.O.	G.t.m.per train-hr. excl.locos. and tenders	G.t.m.per train-mi. excl.locos and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd. car-mile	Net ton-mi. per car-day	Car miles per car-day	Net daily ton-mi. per road-mi.	Train-miles per train-hour	Mi. per loco. per day
New Eng. Region	Boston & Maine	1949	2,948	8,070	11,018	2.7	39,888	2,530	1,022	25.3	885	51.8	5,505	15.8	87.2
		1948	2,074	9,961	12,035	3.1	38,113	1,050	1,050	25.8	849	46.4	5,922	15.3	98.2
	N. Y., N. H. & Htfd	1949	2,241	14,255	16,496	2.0	37,832	2,551	1,104	26.2	594	33.2	5,722	14.9	75.9
		1948	1,481	17,302	18,783	2.0	34,182	2,401	1,074	26.3	606	31.9	6,598	14.3	71.4
Great Lakes Region	Delaware & Hudson	1949	5,505	5,696	11,201	4.6	54,734	3,055	1,565	35.1	1,177	48.8	16,345	18.0	59.4
		1948	2,658	6,569	9,227	4.4	53,049	1,586	1,586	35.7	1,449	57.5	17,223	17.7	65.5
	Del., Lack. & Western	1949	7,358	9,645	17,003	5.2	43,821	2,984	1,349	30.3	739	36.5	12,897	14.9	91.1
		1948	5,159	11,608	16,767	5.5	43,485	2,967	1,351	29.6	790	38.1	13,596	14.9	93.0
	Erie	1949	13,601	16,730	30,331	7.6	54,752	3,327	1,370	26.0	902	51.9	11,865	16.6	74.2
		1948	7,169	23,199	30,368	4.3	55,983	3,468	1,466	27.1	1,044	57.4	14,076	16.3	72.4
	Grand Trunk Western	1949	5,176	7,543	12,719	9.1	45,434	2,251	928	27.2	602	34.3	7,498	20.3	129.8
		1948	4,459	9,433	13,892	6.1	42,839	2,219	926	26.3	548	30.9	7,895	19.4	124.7
	Lehigh Valley	1949	9,100	9,535	18,635	10.1	58,503	3,297	1,540	32.4	657	30.7	9,952	18.1	99.2
		1948	6,825	13,133	19,958	8.4	53,659	3,328	1,617	32.5	672	29.7	11,039	16.5	80.4
	New York Central	1949	77,347	83,645	160,992	6.2	42,516	2,524	1,153	32.2	741	37.4	10,747	17.1	86.4
		1948	57,926	104,544	162,470	3.7	39,622	2,609	1,176	29.8	690	35.5	10,093	15.4	80.4
	New York, Chic. & St. L.	1949	4,790	10,355	15,145	3.7	55,033	2,714	1,119	27.4	1,315	74.4	12,290	20.6	113.0
		1948	3,323	13,509	16,832	1.6	51,659	2,698	1,177	26.8	1,373	72.5	13,218	19.2	122.3
	Pitts. & Lake Erie	1949	6,780	9,862	16,642	7.5	54,182	3,706	2,249	52.2	395	11.3	30,543	14.7	72.4
		1948	4,303	12,707	17,010	7.7	51,318	3,951	2,419	50.4	334	9.3	25,060	13.0	53.6
	Wabash	1949	7,903	10,723	18,626	3.5	47,405	2,226	933	26.6	937	51.5	7,284	21.4	99.3
		1948	5,957	13,641	19,598	3.4	47,316	2,411	1,044	27.2	1,014	52.7	8,341	19.8	102.7
Central Eastern Region	Baltimore & Ohio	1949	62,349	43,835	106,184	9.1	35,667	2,789	1,393	37.8	822	34.9	13,812	13.0	78.5
		1948	44,050	44,782	88,832	7.4	33,160	2,702	1,333	34.9	811	34.8	12,056	12.5	70.0
	Central of New Jersey*	1949	1,013	8,307	9,320	6.7	40,314	2,958	1,526	37.6	349	14.0	7,805	14.1	84.6
		1948	716	9,407	10,123	5.4	39,296	2,966	1,614	38.3	376	14.1	9,468	13.6	71.5
	Central of Pennsylvania	1949	1,793	3,517	5,310	8.9	39,327	3,006	1,594	39.0	645	24.8	16,026	14.1	68.4
		1948	1,373	3,476	4,849	9.4	39,611	3,010	1,615	38.6	781	29.6	17,539	13.9	69.2
	Chicago & Eastern Ill	1949	3,214	3,403	6,617	7.1	41,398	2,401	1,136	31.0	697	32.8	5,055	17.3	70.6
		1948	2,234	4,053	6,387	5.1	38,096	2,239	1,064	31.5	821	37.6	5,877	17.3	79.7
	Elgin, Joliet & Eastern	1949	7,013	10,092	17,105	2.4	21,599	3,002	1,615	41.9	269	9.9	20,303	7.6	97.3
		1948	6,673	9,680	16,353	1.6	18,672	2,695	1,473	41.2	274	9.6	12,078	7.3	93.0
	Pennsylvania System	1949	147,635	94,531	242,166	9.1	43,635	3,104	1,479	35.1	633	29.1	15,142	14.5	74.8
		1948	122,063	119,622	241,685	9.2	39,102	3,045	1,448	32.4	582	27.0	13,994	13.2	65.7
	Reading	1949	16,325	16,054	32,379	6.0	38,186	2,941	1,581	42.0	596	22.2	14,860	13.0	67.2
		1948	9,932	20,076	30,008	4.8	32,703	2,760	1,510	40.8	646	23.5	14,801	11.9	70.8
	Western Maryland	1949	5,621	2,804	8,425	1.5	41,141	3,058	1,703	46.3	1,108	38.3	12,623	13.6	55.1
		1948	4,169	3,822	7,991	1.7	29,328	2,804	1,553	43.6	992	34.4	10,093	10.7	48.1
Pocahontas Region	Chesapeake & Ohio	1949	62,265	25,520	87,785	3.0	61,868	3,900	2,166	47.6	1,194	43.8	21,085	16.0	83.3
		1948	49,790	30,011	79,801	1.9	49,357	3,408	1,902	42.6	850	31.0	14,038	14.7	64.9
	Norfolk & Western	1949	33,750	6,675	40,425	4.6	69,528	4,269	2,348	48.9	1,306	46.4	28,036	16.5	95.5
		1948	29,728	7,225	36,953	2.5	60,522	3,890	2,111	44.7	987	35.9	19,343	15.8	77.5
Southern Region	Atlantic Coast Line	1949	13,995	14,024	28,019	4.9	30,331	1,787	749	28.9	833	48.2	4,215	17.0	75.0
		1948	9,722	22,199	31,921	5.4	27,429	1,855	808	29.2	880	48.0	4,758	14.9	84.8
	Central of Georgia	1949	3,277	4,052	7,329	7.9	29,870	1,623	744	30.3	868	41.4	3,830	18.5	88.0
		1948	2,072	5,477	7,549	4.2	29,930	1,719	842	31.4	1,048	44.8	4,637	17.6	105.5
	Gulf, Mobile & Ohio	1949	4,495	8,634	13,129	2.3	37,463	3,024	1,408	30.2	1,035	48.3	4,962	19.1	97.2
		1948	2,905	12,896	15,801	1.6	56,196	3,078	1,487	31.0	1,080	47.8	5,846	18.3	82.5
	Illinois Central	1949	26,047	24,872	50,919	2.1	45,971	2,503	1,155	32.9	1,009	49.7	7,995	18.6	77.6
		1948	17,474	35,542	53,016	1.5	44,986	2,779	1,345	33.1	1,012	45.3	8,499	16.4	71.9
	Louisville & Nashville	1949	38,420	13,385	51,805	3.1	32,556	2,038	1,028	37.8	792	34.5	9,065	16.0	104.8
		1948	27,724	16,257	43,981	3.3	27,488	1,847	964	35.9	821	33.0	8,560	14.9	103.7
	Nash., Chatt. & St. Louis	1949	3,018	3,853	6,871	11.9	36,042	1,821	844	29.8	916	43.1	5,949	19.9	111.5
		1948	1,528	4,781	6,309	5.8	29,474	1,624	789	30.0	1,028	43.4	6,206	18.3	100.0
	Seaboard Air Line	1949	12,054	11,629	23,683	1.8	38,291	2,172	887	29.8	972	55.5	5,626	18.0	102.6
		1948	7,286	18,263	25,549	1.2	36,872	2,199	974	30.1	1,068	53.7	6,226	17.1	93.3
	Southern	1949	17,991	27,630	45,621	3.9	33,603	1,895	816	28.6	803	44.0	5,791	17.9	77.8
		1948	14,041	30,427	44,468	4.7	29,988	1,773	794	27.8	920	46.8	6,196	17.2	82.5
Northwestern Region	Chicago & North Western	1949	23,617	23,744	47,391	2.9	35,556	2,350	1,014	30.5	597	30.8	3,435	15.8	69.4
		1948	19,070	33,698	52,768	3.1	35,321	2,470	1,120	30.5	622	30.5	4,115	14.9	74.8
	Chicago Great Western	1949	2,281	5,254	7,535	6.2	51,715	3,168	1,340	28.0	995	54.5	4,947	16.3	95.2
		1948	1,487	4,821	6,308	3.8	45,718	2,764	1,219	28.6	1,353	68.8	5,675	16.5	98.9
	Chic., Milw., St. P. & Pac.	1949	31,853	24,874	56,727	1.4	37,132	2,274	1,007	30.2	721	37.0	3,904	16.4	80.4
		1948	23,688	35,811	59,499	2.0	35,542	2,246	995	29.3	689	35.4	3,903	15.9	79.8
	Chic., St. P., Minn. & Omaha	1949	1,040	5,982	7,022	4.3	24,211	1,754	766	28.7	599	30.9	2,586	13.9	55.3
		1948	1,010	6,872	7,882	4.9	23,943	1,847	809	28.9	626	31.2	3,084	13.2	66.6
	Duluth, Missabe & Iron Range	1949	14,754	361	15,115	3.8	87,572	5,308	3,160	58.8	922	30.9	24,404	17.1	110.3
		1948	14,514	395	14,909	2.8	79,905	4,867	2,927	55.8	877	30.4	23,262	17.0	114.6
	Great Northern	1949	26,301	16,297	42,598	2.8	50,509	3,119	1,552	36.7	1,117	46.3	5,735	16.3	75.4
		1948	22,795	17,749	40,508	2.9	46,225	2,890	1,145	34.6	1,056	45.1	5,396	16.1	73.2
	Minneap., St.P. & S. Ste. M.	1949	7,371	6,489	13,860	5.7	36,495	2,959	951	31.3	900	44.7	2,970	17.8	112.0
		1948	7,103	9,871	16,974	7.8	34,760	2,080	988	31.4	767	36.0	3,012	16.9	103.4
	Northern Pacific	1949	21,687	12,815	34,502	6.8	45,274	2,689	1,252	31.9	870	39.6	4,618	16.9	72.1
		1948	17,993	15,753	33,746	4.6	44,685	2,605	1,253	31.7	900	39.2	4,752	17.2	71.8
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1949	52,356	31,739	84,095	4.4	52,476	2,582	1,002	26.4	1,006	59.5	6,196	20.4	101.1
		1948	41,538	39,179	80,717	6.0	48,949	2,471	969	26.6	1,238	72.7	7,196	19.9	117.8
	Chic., Burl. & Quincy	1949	19,547	20,824	40,371	3.8	49,162	2,698	1,203	30.4	1,035	52.4	4,837	18.3	69.1
		1948	15,555	27,723	43,278	3.5	49,157	2,878	1,309	30.5	1,152	57.0	5,658	17.1	77.2
	Chic., Rock I. & Pac.	1949	13,313	22,515	35,828	4.4	41,714	2,233	921	28.6	974	56.8	4,500	18.8	113.5
		1948	10,006	25,176	35,182	4.3	41,009	2,314	982	28.6	1,091	60.8	4,929	17.8	108.7
	Denver & R. G. Wn.	1949	8,531	4,163	12,694	4.5	43,121	2,526	1,253	34.0	965	39.9	5,336	17.2	66.7
		1948	7,738	6,739	14,477	3.4	43,459	2,555	1,293	33.8	916	36.1	5,025	17.2	56.2
	Southern Pacific	1949	28,014	36,039	64,053	4.9	47,251	2,487	1,159	27.5	1,107	62.9	8,647	16.5	89.2
		1948	24,673	39,241	63,914	3.5	45,722	2,802	1,136	27.4	1,208	67.6	9,008	16.8	98.8
	Union Pacific	1949	30,995	28,902	59,897	4.0	61,324	2,867	1,236	29.8	1,275	66.1	7,899	21.7	90.4
		1948	26,763	31,243	58,006	3.3	59,521	2,870	1,235	29.2	1,349	70.1	7,958	20.9	96.4
	Western Pacific	1949	2,470	2,344	4,814	7.2	57,443	2,709	1,231	23.7	1,745	83.0	6,812	21.3	54.9
		1948	2,670	2,939	5,609	5.0	54,141	2,603	1,193	27.8	1,412	66.2	6,358	20.8	60.9
Southwestern Region	International-Gt. Northern*	1949	1,035	6,545	7,580	1.1	41,744	2,190	917	29.2	868	47.8	5,868	19.4	102.6
		1948	469	7,520	7,989	1.1	32,800	1,832	759	28.7	979	54.6	6,779	18.2	132.3
	Kansas City Southern	1949	1,814	6,329	8,143	3.9	64,225	3,346	1,571	33.8	1,227	56.9	10,390	19.3	125.5
		1948	1,189	5,595	6,784	3.8	64,976	3,313	1,566	32.2	1,386	63.0	10,673	19.7	118.3
	Mo.-Kans.-Texas Lines	1949	4,765	7,304	12,069	2.3	41,690	2,176	945	29.2	1,171	63.6	4,133	19.3	97.2
		1948	2,403	8,296	10,699	.9	40,719	2,183	944	28.3	1,516	83.9	4,764	18.7	116.6
	Missouri Pacific*	1949	19,330	16,777	36,107	1.9	46,756	2,327	1,004	29.6	1,153	61.4	5,908	20.2	99.7
		1948	15,743	24,722	40,465	2.1	44,713	2,466	1,051	28.7	1,222	66.5	6,932	18.2	105.5
	Texas & Pacific	1949	2,454	5,580	8,034	5.4	52,496	2,427	917	25.9	1,247	77.3	5,575	21.7	97.3
		1948	1,510	8,197	9,707	2.4	41,220	2,173	854	28.4	1,577	94.4	8,711	19.1	155.9
	St. Louis-San Francisco	1949	12,667	10,355	23,022	3.0	38,141	2,153	942	30.3	917	48.7	4,614	17.7	73.5
		1948	6,543	13,291	19,834	2.0	36,035	1,801	803	29.9	1,176	59.3	4,925	20.1	94.6
	St. Louis Southw. Lines	1949	2,138	4,303	6,441	1.9	47,701	2,433	1,090	28.2	1,874	97.5	7,986	19.6	119.3
		1948	1,477	5,769	7,246	2.4	45,942	2,354	1,052	27.5	1,953	99.0	8,983	19.5	137.7
	Texas & New Orleans	1949	4,703	15,582	20,285	3.0	40,787	2,110	937	29.5	1,055	55.3	5,154	19.5	106.6
		1948	3,828	17,852	21,680	2.5	35,574	1,379	823	29.0	1,205	60.4	5,352	19.7	133.3

* Report of trustee or trustees.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

GENERAL NEWS

Radio-Rules Bill

(Continued from page 59)

ary 1, 1947, as compared with 1,975 miles 10 years earlier. The railroad presidents suggested that it was of "much interest to note that all installations of centralized traffic control were the result of voluntary action by the railroads." They found "also noteworthy" the fact that there were 4,503 interlocking devices in service on January 1, 1948, and "according to our information, only one" of them was installed as a result of an order by the commission.

Commenting on Mr. Patterson's statement that the commission has issued in the neighborhood of 10,000 orders with respect to block signals, Messrs. Gurley, Hill and White pointed out that the commissioner explained later in his testimony, "in answer to a question," that those orders were for the most part in response to applications of the railroads for authority to make changes in their existing signal installations. "It should be clearly understood," the presidents continued, "that the 10,000 orders were not requirements upon the railroads but merely approvals of what the railroads voluntarily proposed to do. During the entire period the [Signal Inspection] law has been in effect, the commission has found occasion in only a very few cases, not more than 27, to make any requirement concerning the installation of block signal systems." Meanwhile, they found the commissioner's reference to the 10,000 orders "interesting in focusing attention on the burdensome nature of the requirements in the present law . . ."

The letter's final comment was on the commissioner's statement that safety legislation of the past "has in every instance proved to be not only of advantage to the carriers from a safety standpoint, but has also resulted in more efficient and economical operation." The presidents thought that statement overlooked the section 25 provisions relating to the installation of automatic train-stop and train-control devices which were enacted in 1920. At that time, they said, those devices were in an "experimental or development" stage, "much the same as the stage in which we find radio train communication today."

The commission, they added, nevertheless issued its 1922 and 1924 orders requiring 44 roads to install train-stop or train-control devices on one or more of their passenger locomotive divisions, the total road mileage involved having been 8,308. In 1928, "after full investigation of the operation of these installations," the commission decided against requiring any further installations, the presidents next pointed out. They quoted from that 1928 decision language they thought left a "necessary inference" that "the many millions of dollars which the railroads had been required to spend in the installation of automatic train-stop and train-control devices could have been spent in other ways which would have accomplished more in the interest both of safety and efficiency of railroad operation." Thus it seemed "clear" to Messrs. Gurley, Hill and White that "the 1920 legislation . . . was untimely and ill-advised."

I. C. Tells "Story of Busy Year" In Report to Its Employees

To show the employee the "whole forest" instead of the "separate trees surrounding his or her own job," the Illinois Central has published a 32-page, profusely illustrated booklet which recounts the railroad's accomplishments in 1948. The report tells its story in two parts—income and expenses—using dollars as the yardstick of progress.

The report shows, separately, the road's income from freight, passenger and other services, and its expenses chargeable to wages, taxes, interest on borrowed money and material, supplies and other services. Both the income and the expense dollar are pictorially divided into parts, each part representing the amount attributable to one of the aforementioned services or expenses. Graphs are employed to draw comparisons between the income and expenses of 1948 and those of the past 20 to 30 years.

Freight Car Loadings

Loadings of revenue freight in the week ended July 9 totaled 595,321 cars, the Association of American Railroads announced on July 14. This was a decrease of 48,861 cars, or 7.6 per cent, under the previous week, a decline of 159,779 cars, or 21.2 per cent under the corresponding week last year, and a drop of 211,796 cars, or 26.2 per cent, under the equivalent 1947 week.

Loadings of revenue freight for the week ended July 2, 1949, totaled 644,182 cars, and the summary for that week as compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, July 2, 1949

District	1949	1948	1947
Eastern	110,788	132,138	102,982
Allegheny	116,263	159,823	127,150
Pocahontas	19,018	23,867	20,969
Southern	92,117	112,990	90,804
Northwestern	129,812	133,484	115,745
Central Western	118,424	130,454	112,098
Southwestern	57,760	64,522	59,456
Total Western Districts	305,996	328,460	287,299
Total All Roads	644,182	757,278	629,204
Commodities:			
Grain and grain products	69,958	61,087	58,967
Livestock	7,470	7,893	9,253
Coal	23,177	56,773	32,753
Coke	9,465	11,939	8,523
Forest products	36,708	48,133	32,595
Ore	77,995	83,091	78,395
Merchandise l.c.l.	91,049	105,236	96,647
Miscellaneous	328,360	383,126	312,071
July 2	644,182	757,278	629,204
June 25	802,941	888,368	846,141
June 18	649,351	906,631	901,296
June 11	808,156	906,663	895,292
June 4	698,824	821,206	900,747
Cumulative total 26 weeks	18,735,980	20,827,510	21,611,373

In Canada.—Carloadings for the week ended July 2 totaled 62,070 cars, compared with 75,352 cars for the previous week, and 71,064 cars for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
July 2, 1949	62,070	29,366
July 3, 1948	71,064	33,468
Cumulative totals for Canada:		
July 2, 1949	1,875,721	818,592
July 3, 1948	1,934,305	918,326

S. F., U. P., and Wabash Ask Authority to Pool L.C.L. Traffic

The Atchison, Topeka & Santa Fe, Union Pacific and Wabash have petitioned the Interstate Commerce Commission for authority to continue pooling merchandise traffic between St. Louis, Mo., and Los Angeles, Cal. Such an arrangement had been allowed by the former Office of Defense Transportation under Supplementary Order O.D.T. 1-2 since January, 1944, but this order was revoked April 16.

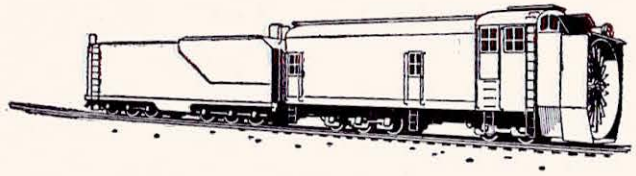
The application seeks approval of a proposed arrangement whereby the Wabash will load and forward merchandise cars from St. Louis to Los Angeles via Henrietta, Mo., or Kansas City, Mo., on six days of each week. The routes of movement of such merchandise would be alternated daily so that on three days of each week merchandise cars will be forwarded by the Wabash from St. Louis to Los Angeles via (a) Wabash to Henrietta, and Santa Fe to Los Angeles and (b) Wabash to Kansas City, and U. P. to Los Angeles.

The railroads' application said that the Wabash should be permitted to disregard routing instructions when that is necessary to permit the forwarding of traffic in the first merchandise car departing from St. Louis to Los Angeles. Such pooling of merchandise, the application added, would be in the interest of better service to the public, would make for more economy in operations and would conserve equipment and not unduly restrain competition.

The commission has assigned the application for hearing on July 28 at U. S. Customs House, 610 South Canal street, Chicago, before Examiner Frank E. Mullen.

Money for Retirement And Mediation Boards

Appropriations of $882,741,000 for the Railroad Retirement Board and $928,500 for the National Mediation Board and National Railroad Adjustment Board are provided by the so-called labor-federal security appropriation act for the fiscal year ending June 30, 1950, which has been signed by President Truman. The appropriation for the Retirement Board includes $715,889,000 as the estimated fiscal 1950 tax collections under the Carriers' Taxing Act, and $166,852,000 (to be paid over a five-year period) as the



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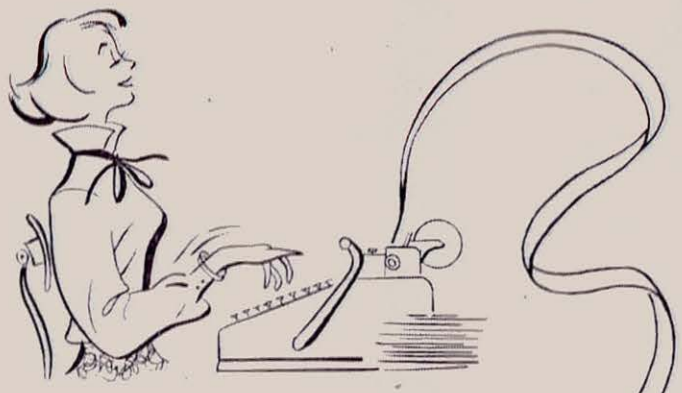

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estimated total of military-service credits due the retirement fund under that provision of the Railroad Retirement Act which stipulates that such payments shall be made into the fund to maintain the benefit status of railroad employees who served in the armed forces.

Appropriations to cover these military-service credits must come from the Treasury's general funds, and are thus in addition to the payroll taxes collected under the Carriers' Taxing Act. Recommending that the matter be handled on a pay-as-needed basis, President Truman's budget message contained no estimate for a fiscal 1950 appropriation for the military-service credits. The House accepted that recommendation, but the Senate included the appropriation with provisions calling for its payment into the fund over a period of four years. The payment period was extended to five years in the final version of the bill which was embodied in the conference report that reconciled the Senate and House versions. Since the Treasury is required to pay 3 per cent interest on the balance in the retirement fund, the effect of Congress' action in appropriating for the military-service credits on the accrual basis will be to augment the fund's interest earnings.

Meanwhile, Congress did adopt one of the budget's recommendations which called for provision of funds for the Retirement Board's administrative expenses by an allocation directly from the retirement account. Thus the amount expected to be required for fiscal 1950 administrative expenses — $5,104,000 — will come out of the $715,889,000 appropriated to the account as the estimated total of fiscal 1950 payroll tax collections. Previous appropriations for the board's administrative expenses have been made from the Treasury's general fund, with subsequent reimbursement to that fund from the retirement tax collections. For its administrative expenses during the past fiscal year ended June 30, the board received appropriations totaling $4,930,000, including a supplemental appropriation of $500,000 carried in the so-called second deficiency appropriation act for fiscal 1949, which was also signed recently by the President. The administrative expenses here involved are those incurred by the board under the Railroad Retirement Act, for administration of the Railroad Unemployment Insurance Act the board receives directly a portion of the taxes collected under that act.

The $928,500 provided in the labor-federal security act for the fiscal 1950 operations of the Mediation and Adjustment boards includes $360,400 and $468,100, respectively, for the operations of those boards and $100,000 to pay the salaries and expenses of arbitration and emergency boards which may be set up during the year. For the past fiscal year ended June 30, N.M.B. and N.R.A.B. received a total of $937,050, including a supplemental appropriation of $74,500 carried in the second deficiency act mentioned above. This deficiency appropriation included $36,900 for arbitration

and emergency boards (in addition to the original fiscal 1949 appropriation of $100,000), and $37,600 for Adjustment Board expenses, which brought the fiscal 1949 appropriation for that purpose to $459,800.

Another $207,700 is proposed for the Adjustment Board in the third deficiency appropriation bill which has been passed by the House and now awaits action by the Senate. Although carried in this fiscal 1949 deficiency bill, the $207,700 would actually be an additional appropriation for fiscal 1950. The report made on the bill by the House committee on appropriations explained that the money would be used to pay expenses of the two supplemental boards created recently, pursuant to a labor-management agreement, for the purpose of clearing up the backlog of grievance cases now pending before the Adjustment Board's First Division (see *Railway Age* of May 28, page 46).

"The division . . . ," the House committee's report continued, "has had a work backlog for several years which has been a source of threatened tie-ups of important railroads and a complicating factor in an otherwise comparatively peaceful labor relations situation in this field. Officials of the board testified that it might well be possible to bring the work of this division up to date within two years and in approving the full budget estimate the committee urges officials of the board to get the program under way with all possible dispatch and wishes to underscore the importance of winding it up at the earliest possible date. As a matter of fact, it probably should have been cleaned up by this time and the committee stands ready to give sympathetic consideration to any proposal to expedite the matter. A detailed report on the status of the program will be expected when the 1951 budget is considered."

New York Central Issues New "Train Time-Guide"

A new "train time-guide" designed to make schedule reading easier for travelers between more than 40 leading cities in seven states and Canada is being issued by the New York Central. The guide contains 16 tables showing key trains operating between the cities. In most cases, the tables have no footnotes. When they do occur, there are never more than two. The two-color folder also features directions for its use; contains an index to the tables, and has illustrations of the various types of accommodations available for daytime and overnight trips.

S.A.L.-L. & N. to Run New Jacksonville-New Orleans Train

Faster service and improved accommodations between Jacksonville, Fla., and New Orleans, La., will be offered beginning July 31 by a new train, "The Gulf Wind," under joint operation of the Seaboard Air Line and the Louisville & Nashville. Hours shorter than current

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service, the new train will save approximately five hours between the two gateways and 12 hours between South Florida cities and New Orleans. Convenient connections with streamliners will be made at both Jacksonville and New Orleans.

For the first time, bedrooms for single or double occupancy will be available along with berth and coach accommodations, lounge-car facilities and dining-car service for all meals. Completely refurbished, all cars will have distinctive exteriors of blue and gold.

"The Gulf Wind," carrying through equipment and making only principal stops, will replace one of two local trains now operating between Jacksonville and New Orleans. The other train will continue to offer daylight local service between the two points.

Railroad Fair Is Well Attended Despite Rain and Heat Wave

A daily average of 20,000 paid customers visited the Railroad Fair at Chicago during its first 16 days, June 25 to July 10, inclusive, although 10 days were excessively rainy and the mercury climbed well above the 90-deg. mark on eight days. A respite from the heat wave, plus clear skies, combined to draw a 1949 record crowd of 43,308 visitors on Sunday, July 10. The total paid attendance figure as of that date was 327,336.

Descriptions of two feature attractions at this year's Fair were inadvertently omitted from the *Railway Age* of July 2, which carried feature articles on the various attractions. They are the extremely popular "Old Corral" show of the *Great Northern-Northern Pacific-Chicago, Burlington & Quincy* and the dynamometer test car of the *Illinois Central* and the *University of Illinois*.

The rodeo presentation is a repeat feature from last year's Fair, offering cowboys and cowgirls in trick and fancy riding and roping, bulldogging, calf-roping, bronco-busting, Roman races and quadrilles on horseback. Complete new shows will be started on August 1 and 22. Performances are given every hour on the half hour daily from 10:30 a.m. to 9:30 p.m.

The dynamometer car is on the track exhibit at the south end of the fair grounds. It houses testing equipment consisting of gages, charts, paper tape and electrically controlled pens which make a continuous record of engine pull and other related data such as train speed, wind velocity, steam and air-brake pressure, fuel used and distance traveled.

Emergency Board on M.P.

President Truman has appointed an emergency board to investigate a dispute between the Missouri Pacific and those of its employees who are represented by the four train-service brotherhoods, i.e., the Brotherhood of Locomotive Engineers, Brotherhood of Locomotive Firemen & Enginemen, Order of Railway Conductors, and Brotherhood of Railroad Trainmen. The dispute involves grievance cases which are within the jurisdiction of the National Railroad Adjustment Board.

Members of the board are Curtis G. Shake, Roger McDonough, and Floyd McGown. They were scheduled to open hearings at St. Louis, Mo., on July 14.

Uniform Pullman Service Contracts Signed by 42 Roads

As of June 27, 42 railroads had signed with the Pullman Company a uniform service contract and accompanying car lease, to become effective, subject to the approval of the Interstate Commerce Commission, on July 1, C. R. Harding, Pullman president, told members of the Purchases and Stores Division of the Association of American Railroads at the opening session of their annual meeting in Chicago on the former date.

These new contracts replace former uniform operating contracts which had been made effective between the Pullman Company and various railroads as of January 1, 1946, in accordance with the terms of a "memorandum agreement" of October 18, 1945. These interim contracts had been written to expire as of December 31, 1948, but were extended by mutual agreement for six months — to June 30, 1949 — while the new form of permanent contract was under consideration. A committee of seven railroad representatives, with accounting and legal subcommittees, participated in working out the new contract with the Pullman Company.

Mr. Harding also told the P. & S. Division that a total of 2,396 standard heavyweight sleeping cars and 152 tourist cars had been transferred from Pullman to railroad ownership under the terms of the 1945 memorandum agreement. Most of these cars, however, will continue to be operated by Pullman under the car lease attached to the uniform contract.

The balance of Mr. Harding's address, as reported on page 121 of the *Railway Age* of July 9, was an analysis of the advantages of unified sleeping car service, as compared with separate operation by individual roads.

President Would Repeal Tax on Freight Transport

Repeal of the tax on amounts paid for the transportation of goods was among recommendations made by President Truman in his Midyear Economic Report which was submitted to Congress on July 11. The tax, which is levied on freight charges paid to all agencies of for-hire transportation, is 3 per cent of such charges except in the case of coal where it is 4 cents per short ton. In 1948, the tax yielded about $339 million.

It "should be eliminated," the President said, because it "enters directly into such a large number of business costs." Meanwhile, his message made no

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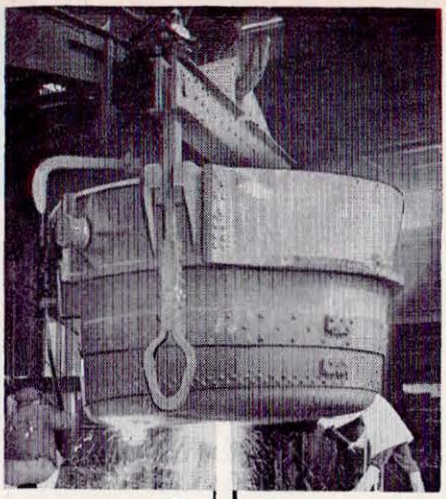

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reference to the 15 per cent tax on fares, the repeal or reduction of which is proposed in several bills now pending in Congress. Proposed legislation to repeal the freight tax is also pending.

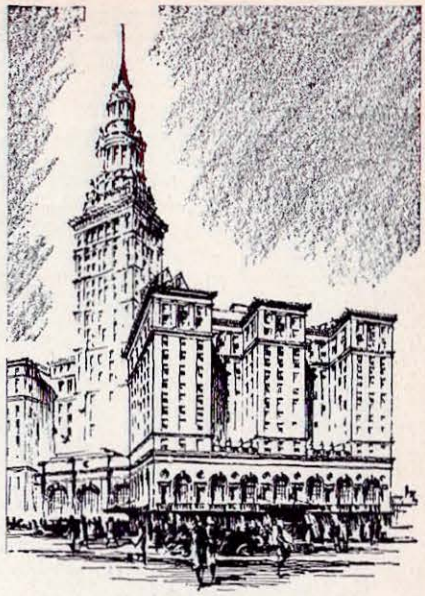
Other recommendations of the President's message included those calling for legislation to "liberalize the provisions for carry-over of losses by corporations," and to increase the statutory minimum wage to "at least 75 cents an hour and broaden its coverage." At the same time, the President abandoned the recommendation, made last January in his state-of-the-union message, which called for new tax legislation to yield $4 billion a year, "principally from additional corporate taxes." His present message said that under existing conditions "immediate tax increases should be limited to raising estate and gift taxes and closing the loopholes in their administration . . ."

The message described the present as "a transition period, in which we must work toward conditions that will promote a more stable and enduring growth in production, employment and purchasing power." No new public works program was recommended by the President. "The economic situation does not now call for an immediate and sweeping expansion of public works," he said, having previously indicated his view that work should continue on present federal and state programs which he called "substantial."

Also, the President favors preparing new programs "which might be needed if the business downturn should become more serious." And in that connection he recommended legislation "to provide for loans to assist state and local advance planning of public works," and to "enable the Bureau of Public Roads to make advances to states for acquiring and clearing rights-of-way."

Earlier in his message the President said that American businessmen now have "great opportunities" for investments, including those designed "to improve transportation facilities." Businessmen, he added, "should lift their sights to the needs of an economy that grows and prospers from year to year." The President also said that the country, "within a few years," can achieve a national output "well above $300 billion, valued at current prices."

The trend of prices was among the economic developments discussed at some length in the report of the President's Council of Economic Advisers which accompanied the message. There this was said: "A difficult problem of price adjustment is presented by the public-utility services, especially transportation, where competition is not directly effective. Their prices are a substantial element in the cost of production of manufactured goods, and, instead of falling, they are still rising in response to past advances in the cost of materials and labor. Public utility commissions as well as company executives have the special responsibilities of adjusting rates in relation to changed cost and demand conditions, with special emphasis upon the interests of the economy as a whole."



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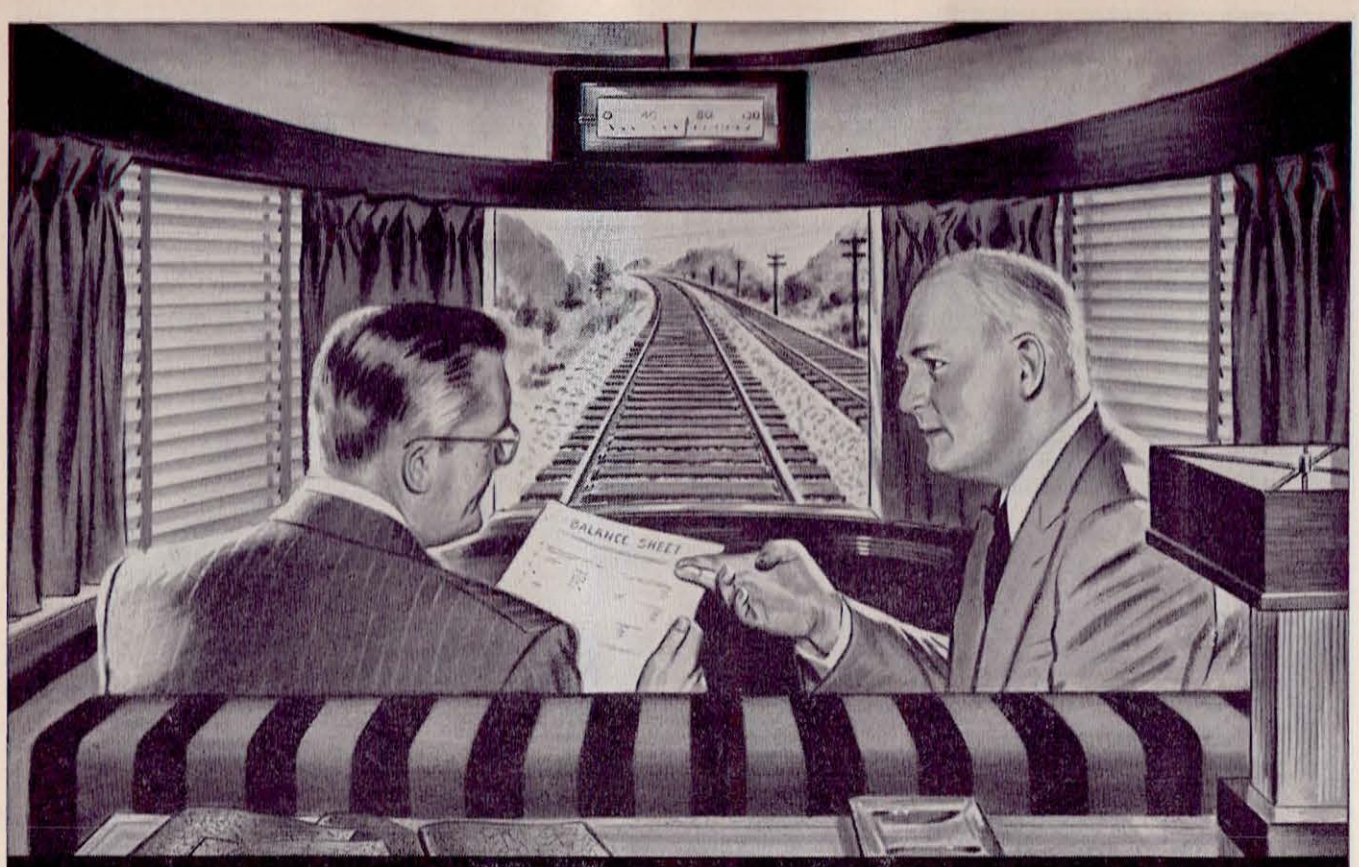

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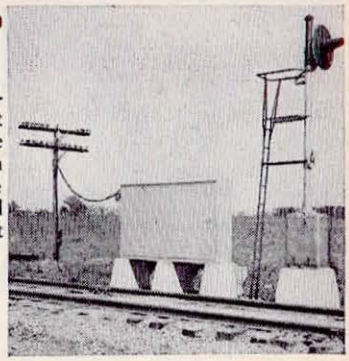

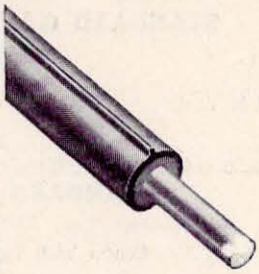

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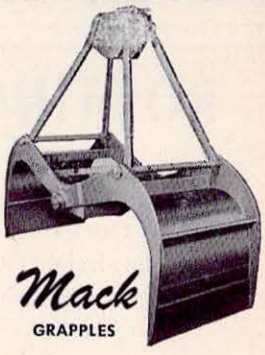

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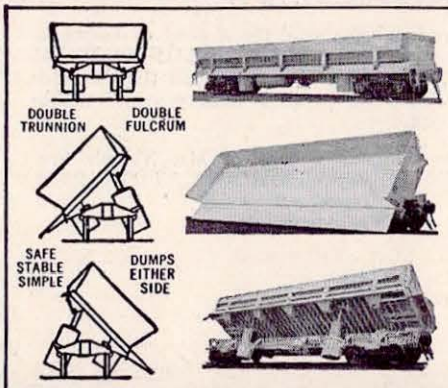

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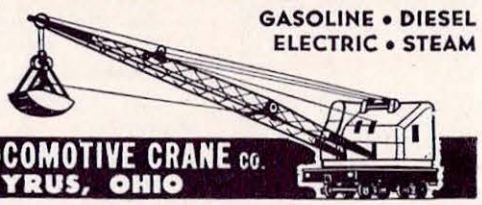

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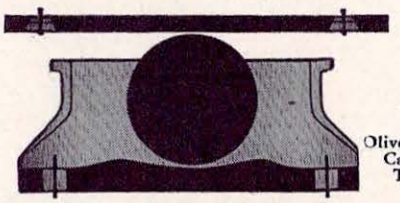

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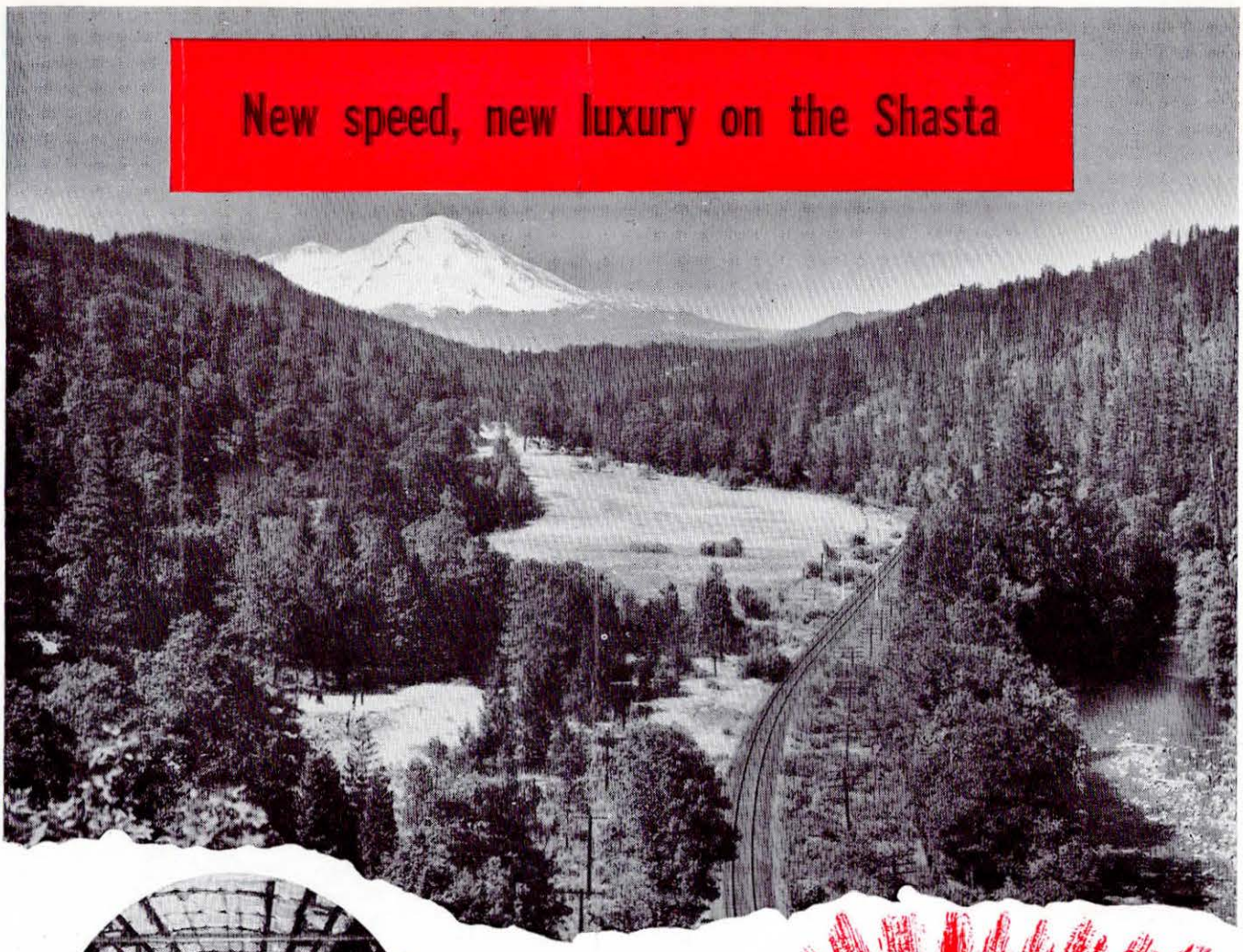

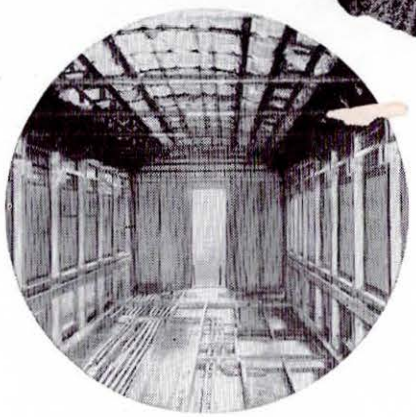

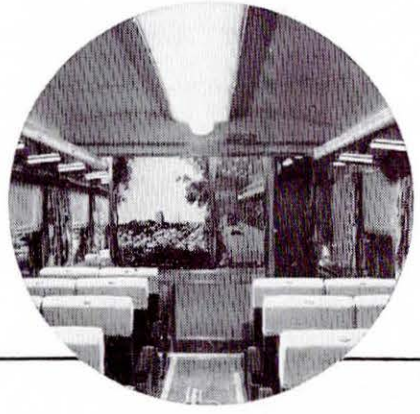

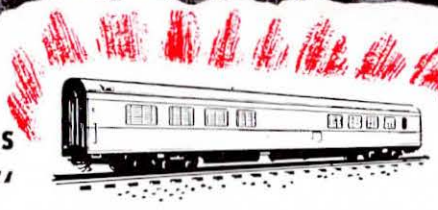

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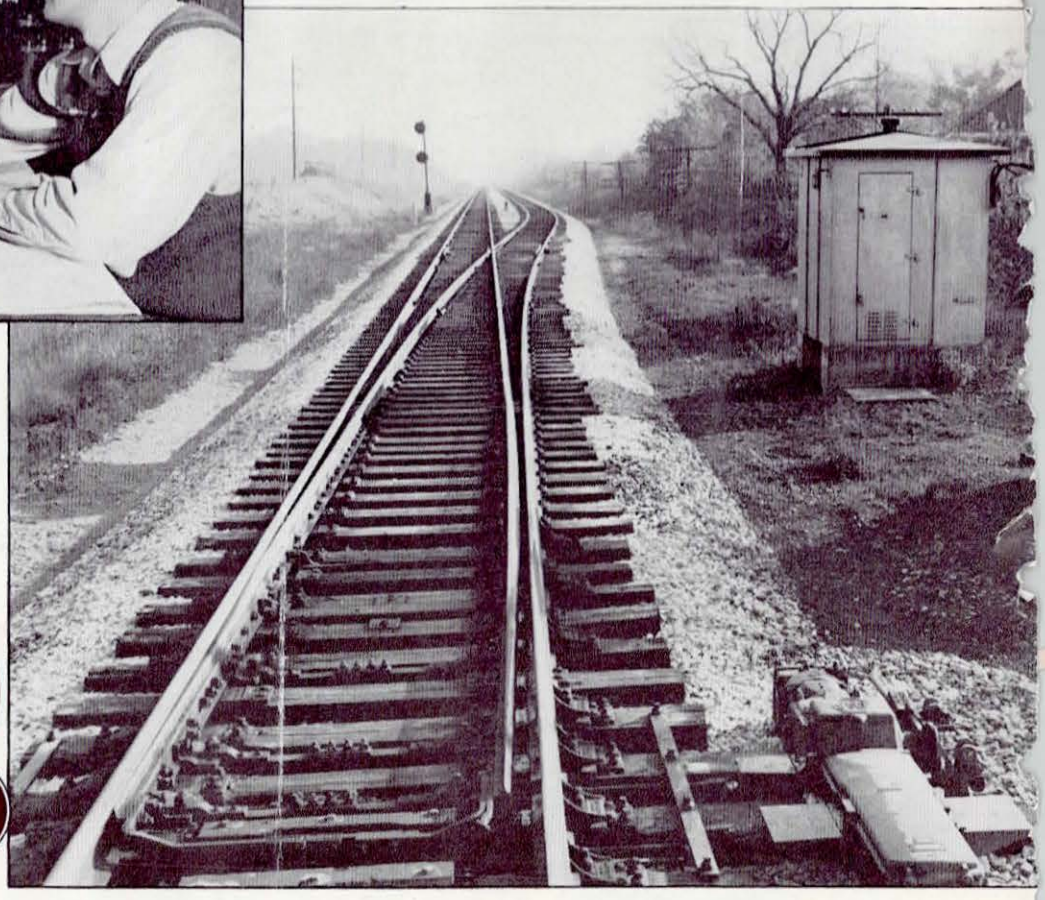

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